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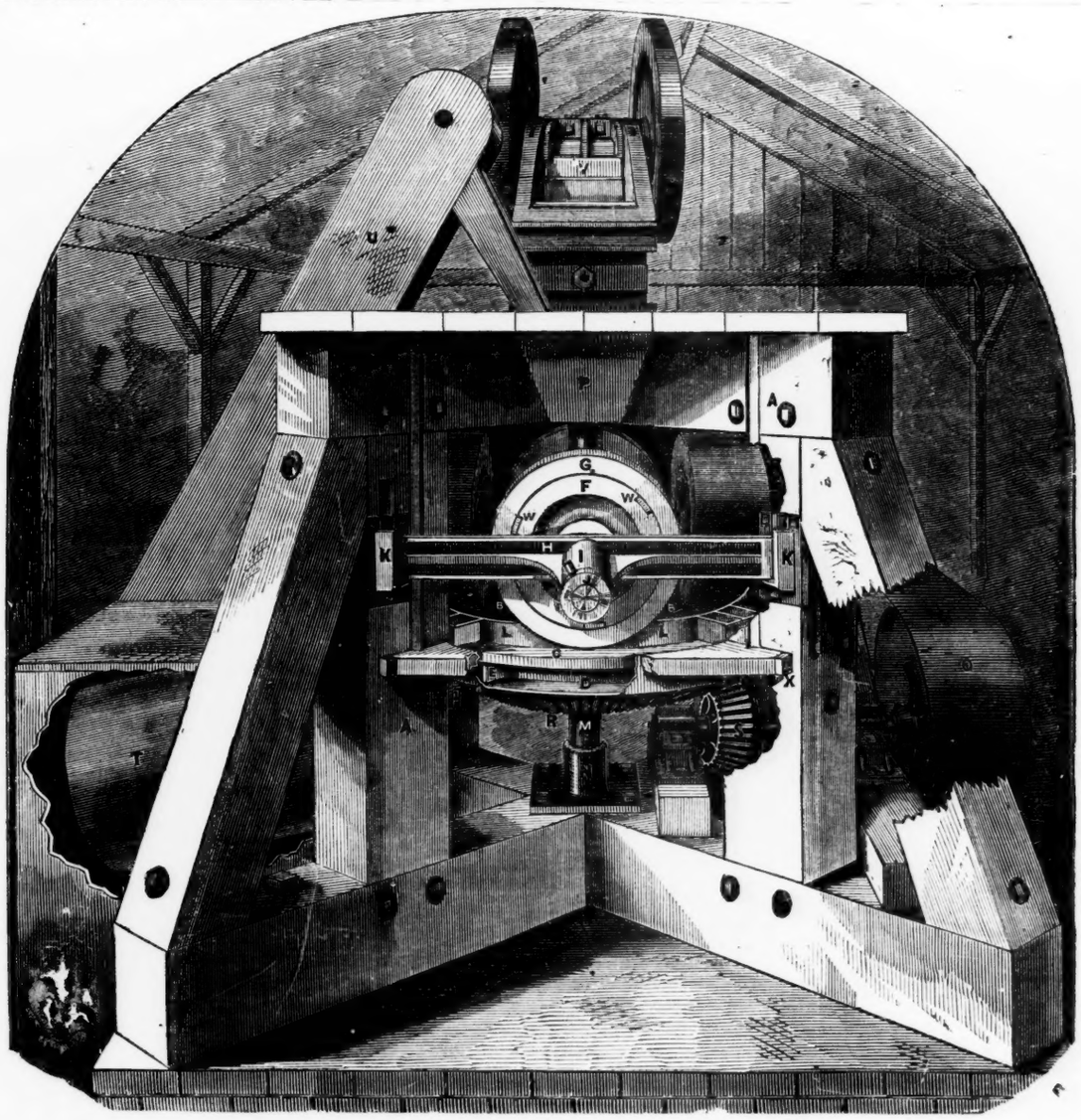

THE "LITTLE GIANT" QUARTZ MILL.

IMPROVED QUARTZ MILL.

Believing that miners and mill-men may derive benefit from the publication in the JOURNAL OF MINING, of recent noteworthy inventions in their line of business, we present this week the accompanying engraving of the "Little Giant" Quartz Mill, which was constructed with a view to combination of the grinding and pulverizing principle of the Chili mill, without its slowness—the effect produced by stamping—with a perfect discharge and confinement of the dust. By reference to the cut, it will be seen that AA is a wooden frame; BB, circular disk, having a recess for the reception of the white iron annular ring, or die, C; D, an adjustable gutter; E, scraper on C, and fitting D; FFFF, four flat-faced rollers, resting on C; G, white iron ring on F; H, horizontal bar and hub, having a vertical motion in boxes, KK; J, spindle of F, revolving in H; LL, adjustable guides suspended between rollers FF, and near disk C; M, upright shaft supporting BB; N, step; O, driving pulley; P, hopper; R, gear; S, pinion; T, cylindrical bolt; U, conveyor; V, crusher; WW, keys; X, binders for adjusting D. On revolving the disk BB rapidly, which transmits motion to FFFF, the ore, which is fed on to the centre of the plate B, is, by its own inertia, and the centrifugal force of the plate, thrown rapidly off the plate B into the gutter D, passing, in its course, under the rollers F, either before or after it has received a change of direction from the guides LL, and so regular as to form no cushion between F and C. From the gutter D, it is removed by the scraper E into the cylindrical bolt F, from whence that which will not pass the sieve is returned to be re-ground, by the conveyor U. The top and sides of the machine are enclosed inside of all, journals and bearings. The arrangement of the bracket H and the boxes KK, admits of the rollers F keeping an even face, and conforming to the surface of the plate BB and die C. The plate is intended to revolve some forty-two revolutions per minute. The rollers are 72 inches round, with an 8-inch face, making 576 inches on the face of each, and have a weight of 1,100 lbs. In each revolution of the bed the rollers will re-

volve twice, making 84 revolutions, which will cause 47,628 inches of iron to strike the rock each minute by one roller; and by the four, 190,510 inches, with a striking power of 100 lbs. to the square inch. The inventor has calculated that "a Stamp weighing 650 lbs. drops one foot, and has a striking effect of only 46 lbs to the square inch, and this effect is usually greatly reduced by the cushioning of the ore in the mortar, resulting from an imperfect discharge; it drops 60 times a minute, and has a face of 36 square inches, making 2,160 inches that come in contact with the rock each minute by a single Stamp, and to increase the number to ten Stamps, we have only 21,600 inches employed against 190,510 inches in the LITTLE GIANT, with a striking power of 100 lbs to the square inch, while the Stamp has only a power of 46 lbs.," which, he says, "must convince every one of the great results attained with this machine over the Stamp, or any other pulverizing machine yet invented." With this mill the work is continuous. It has but two shoes and dies, which, it is claimed, can be replaced in half the time and at half the cost required to replace those in the ordinary Stamp mill. The rollers are so arranged as to pass over everything they cannot crush, so that the mill cannot be injured by pieces of iron, hammers, or anything else dropped into it by careless workmen. The inventor claims that the "Little Giant" will do double the work with the same amount of power than any other machine now in use for dry crushing or pulverizing; that its weight being but some four tons, and its largest piece not weighing over 1,100 pounds, allows of its being easily transported into the new and mountainous districts of the interior, at a small expense, compared with the ponderous machinery now in use; that its first cost enables prospectors and men of moderate means to have a mill of paying capacity without the expenditure of a fortune; that the white iron die on the plate, and the rings on the rollers—the wearing parts of the machine—can be easily replaced at a trifling expense; that its grinding parts are entirely enclosed, thus securing the dust, and obviating the great objection to dry crushing; that its journals are all remote, and protected from dust and grit, thereby preventing any cutting or heating of parts; that it is self-feeding and self-discharging, requiring but one attendant to feed the crusher; that it will reduce ore to any required degree of fineness, and can, at the option of the mill-men, be made to grade its ore suitable for concentration; that by the use of a roller with a flat face, a slip on its inner edge is had, producing a grinding and fine pulverizing effect; that by its feeding and discharging itself rapidly by centrifugal force, all packing and cushioning of ore under the rollers, which is so detrimental to a rapid pulverization, is prevented; that by the use of wings or guides between the rollers, all of the ore is passed under these before it can leave the plate; that by revolving the bed on which the rollers rest, a centrifugal striking force is had on the face of each traveler, which increases in proportion to the square of the velocity attained, and consequently its grinding effects are increased in the same ratio; that the *wear and loss* of iron in the shoes and dies (the only *wearing parts*) of this Machine, are pronounced by competent judges to be at least *fifty per cent. less than the Stamp Mill, or any other* now in use.

Curious and Valuable Invention.

Some very interesting experiments took place not long since, on board the Mersey screw frigate, at Portsmouth, with West's electrical apparatus, fitted on board as a warning indicator of possible danger to the ship from fire or water. A ten-cell battery, fitted in the captain's cabin, with an indicator dial plate and an alarm bell, is placed in connection with twenty isolated copper wires, each of which communicates with a numbered section of the ship's hold, the latter being set off in twenty sections. Calorimeters, connected with each wire, are set at a given temperature, say fifty degrees above the normal temperature of that part of the ship, and the ever watchful sentinel for fire is then placed on duty. If the temperature becomes increased from spontaneous combustion, or from a smouldering fire raised by other causes, the temperature has no sooner reached the heat at which the calorimeter has been set, than the circuit is completed, the alarm bell violently and incessantly rung in the captain's cabin, and a number displayed on the dial showing the section of the ship in which the dangerous heat is being generated. The rise of water in a ship's bilge beyond a fixed height, is also indicated by the ringing of an alarm bell and the display of the section number. The calorimeter is a small metal vessel, some three inches in length, three-fourth filled with mercury. The outside of the vessel is in contact with one part of the copper wire of the section, the other part being suspended through the boxwood stopper in the neck of the vessel, the distance between the point of the latter part of the copper wire and the mercury being regulated according to the temperature considered dangerous. Should this latter event ever occur, the mercury necessarily expands, and, bringing the end of the wire in contact, the circuit is completed. The water signal is a piston inclosed in a chamber, with the signal wire fixed at a certain distance—say two feet—above it. If water finds its way from any cause into the ship's hold, the piston rises with the water, and on coming in contact with the wire, the circuit is here completed, and the signal transmitted to the indicator dial and alarm bell. The signals were sent from all parts of the ship with unerring certainty, and with calorimeters set at various degrees of temperature, and with the water signal at varying highths. As the use of fire to raise the temperature of the ship below was out of the question, hot water, at the required temperatures, were used for testing the system and the manner in which it had been applied on board the *Mersey*. Her Majesty's ship *Valiant* is already fitted on the same principle, which is also to be applied on board all of her Majesty's troopships.—*London Globe.*

Mining Summary.

Nevada.

The Comstock—The past week—says the San Francisco *News Letter* of March 10th—has been a very brisk one, showing a firmness that is no doubt, based upon late developments made on lower levels, the particulars of which are as follows: The Ophir, on their ninth (9th) or lower level, have struck a fine body of ore near the central line, pitching east, and improving as they go south. At last accounts it was seventeen (17) feet wide, and the full extent not yet determined. This stock has fluctuated, but the market is firm at 725. This strike speaks well for the ground lying between Ophir and Gould & Curry, and we hear an effort is on foot to consolidate and put down a deep working shaft on the east side of the lead. The late developments in Gould & Curry speak better for Savage than for their own mine. They are drifting from the lower level north, and looks favorable for a body of ore in that direction, which will be very favorable for Best & Belcher. Savage.—This mine, for the present, has to depend upon their upper levels for ores, which they are taking out at the rate of seventy-five tons of second class, and about five of first (1st) daily. They are sinking their shaft, and, on the first of this month, will be at work on their sixth level, which prospects better than any other lead ever opened in the mine. In addition to the one developed by winze, the Hale & Norcross have drifted up to their line on the south, and have a body of ore twenty-two feet wide, as fine as was ever opened. This deposit is one hundred and sixty (160) feet lower than the sixth level. This is the only mine that has ores on both ends of it. Hale & Norcross.—Nothing new has to be noticed since the strike was first made. They are sinking for another lead, which they can get in about sixty days. Any further works below they expect to work through the new shaft of Savage, on E street, which is now three hundred and forty (340) feet deep, and sinking at about seventy-five feet per month, taking the present dip of the lead to the east; the Savage shaft, at a point one hundred feet deeper than the present workings of Hale & Norcross, must strike the east wall of the mine. Chollar-Potosi.—There is nothing new in this mine. They are drifting from their new shaft, and, in our judgment, so much work thrown away. The same work put on sinking their shaft would have been better. The Bullion are drifting north, and are in hopes of soon striking ore. They deserve it. The Exchequer is drifting east, with good prospects. The Alpha is waiting the sinking that is now going on in Imperial & Empire, and, for want of ores, have been running on Ophir rock, and will commence next week on Savage ore. Confidence, in raising from their lower works, struck a fine body of ore, the extent of which is not yet known. It looks well. The Yellow Jacket are driving west from their shaft, and will, no doubt, strike the Crown Point ledge, and we look for a material raise in this stock. The Crown Point shows better than any mine on the lead. Their receipts last month was over $150,000. The directors have settled nearly all outside claims against the company, and others will be settled before any dividends will be paid. The Belcher has only the hope of finding metal, and, when we take the fact that Crown Point, on the north, has valuable ore, and the Overman, on the south, improving, there is reason for hope. Were there more purchasers for investment it would be better, but the fact is, most of the stock bought is only for a raise of a few dollars, and then sold. The developments lately made show a permanency that should invite capitalists to enter the field. Again, the reforms lately introduced by Savage, Gould & Curry, Ophir, and, in fact, all the mines, will prove a saving of fifteen per cent.

Reese River.—Mining Engineer Blatchley writes that the Great Basin, of which Reese River is the center, is one of the most extensive mining districts discovered in ancient or modern times, not excepting Mexico or Peru. Only five years have elapsed since the first silver was worked in the Basin, and last year the amount shipped from Nevada nearly equalled the amount produced in Mexico, the greatest silver-producing country in the world, and the production of this year will double that of last. The mines of Reese River are noted for their wonderful richness, and remarkable for the great number that exist within a small compass. The average yield of all the ore worked in Austin is near $144 per ton; this includes all good, bad and indifferent mines. Nearly every variety of silver ore known to the mineralogist is found in Reese River. Native silver is found as wire silver, and in thin lamina between different layers of ore, and also in masses of irregular shape, mixed with ore. This latter variety is mostly found in the Revenue Mine, on Lander Hill, where pieces weighing five pounds have been found. It is also found in minute particles in the oxide of iron, forming the ore known in Mexico as the colorados. Near the surface, above the water level in the mines, the ores are materially different from those found below it. The ores found above the water level are chloride, iodide, bromide, and selenide of silver. Below the water, sulphur enters into most all the combinations of silver, and the ores are a combination of silver, sulphur, and many other metals, as iron, antimony, arsenic, lead, copper, zinc, manganese, and selenium. . . . Of these argentiferous mines a correspondent writes:—In the latter part of the year 1862, the silver mines at Reese River were discovered, and the Reese River mining district, in which the town of Austin is located, was formed. This district, the mining belt of which is about six miles long by three wide, contains at least 3000 claims. According to the returns of the assessor for the year 1864, the average yield of all the ores worked in the district was $204 per ton, a yield which has no precedent in the mining history of the world. All we lack now for the purpose of taking out a hundred millions yearly is the Pacific Railroad. . . . The *Reveille* of February 24th, says: We were shown this morning at the assay office of David Lundbom, two bars of bullion weighing respectively 917 and 276 ounces, produced from six tons of first and second class ore from the Washington mine on Lander Hill. The ore was reduced at the Ware mill, and although chloride, it was roasted, lessening the fineness of the bars, which were 823 and 856 fine. The value of the bars was $1,281 48, which gives $213 58 per ton. The first class yielded at the rate of $329 per ton, and the second class $168. The mineral was taken from the ledge where it had been uncovered by the workmen engaged in grading for the hoisting works.

Pahranagat.—Common report makes the Pahranagat Valley very extensive, and equal in fertility to the best lands of California, or, as one of the early visitors expressed it, equal to "old Illinois." It is watered by the West-Muddy, which is said to afford every facility for irrigation. The valley is about one hundred miles from the Colorado River. Rumor, of course, makes the section rich in silver and gold. We have been shown samples of rock said to have been obtained there, which was of a very superior quality. Within the last few days certain parties have delivered parcels of mineral—taken from two veins in the region—to J. R. Murphy, Superintendent of the assay office of the National Bank, assays of which have given the following result: the Candaleria yielded $711,59 in silver, with strong traces of gold; and the Esperanza gave $245.04 in silver, and traces of gold. We learn that the ore is a silver sulphuret in a base of lead, which is almost the only base metal present. The mineral from the Esperanza contained less lead than that of the Candaleria vein, and was less concentrated and generally disseminated through the gangue. In the judgment of the assayer, they will prove excellent ores for mill treatment. All the ore yet exhibited as coming from Pahranagat is argentiferous galena. As a number of enterprising and intelligent prospectors have already gone thither, and others are preparing to follow in their footsteps, we may hope soon to be informed as to the true character of the region.—*Reese River Reveille.*

Mammoth.—A correspondent of the Sacramento *Union* states that Mammoth is probably the most extensive district of the vast silver belt that reaches south 200 miles. A small three-stamp mill has just started here, and preparation for a number of the finest mills in the State by Eastern companies. Here are mines not to be exhausted in a few years, but lasting as the hills; not confined to a few lodes, but numbered by hundreds, now partially developed, and others constantly being discovered. Eastern capital has taken hold here in the right way, and the coming Summer will see Weston one of the busiest towns in Nevada. Hundreds of laborers will find work here.

All indications warrant the assertion that Mammoth District will have within the next twelve months a hundred stamps pounding away at its exhaustless treasure of ore. The town is a pleasant situation at the east base of the Mammoth range. Lots are yet given away to all who will improve them. Wood is abundant and cheap here, and cannot exceed $4 per cord for years. The Mount Vernon (New York) Company, represented by General Rosecrans (who gave the whole Reese River region a thorough examination last Summer), have invested heavily here, and will soon begin operations on a large scale. There are many noted mines in this district.

Union.—This district, 10 miles east of Mammoth, contains the county town Ione. It is a flourishing place, growing up rapidly, and has a ten-stamp mill in operation, owned in part, I believe, by a citizen of Sacramento, to whom belongs the credit of being the pioneer of milling in this region. The ore of this portion of the district is not excelled by any yet found in Nevada. Three miles further south the Knickerbocker Company are building a splendid twenty-stamp mill, to be running by the first of April. A few miles further south are the towns of Union and Grantsville. There the lodes are large and rich. A number of fine mills will be in course of erection there soon; the machinery for one is already on the ground.

Twin River.—A District 20 miles east of Union, is famous for one of the richest mines in the State, and probably in the world. The owners have a forty-stamp mill on the ground, and are putting it up as fast as the rugged nature of that region will permit. They have out hundreds of tons of the richest ore ever brought to sunlight. Their forty-stamp mill running on such ore will turn out bullion by the ton.

San Antonio.—Is nearly south of Twin River, and is famous for several remarkably rich mines, where a ten-stamp mill has just started. Still further south is Silver Peak District with a ten-stamp mill in very successful operation, and one of forty stamps to be put up immediately.

Paradise. The first district south in the Mammoth range is Paradise, fifteen miles distant. This is a recent discovery, and consequently but little work has been done; however, the lodes are large and promising.

Volcano.—South of Paradise is Volcano district, which is noted for its extensive mine of quicksilver, also many fine lodes of copper and silver; and more recently anthracite coal has been discovered.

Pilot, et. als.—A correspondent says that Pilot, Columbus and Red Mountain Districts — south of Volcano—all containing numerous rich lodes, particularly Columbus, which is most developed. There the lodes are numerous, large and rich. At Red Mountain gold predominates. A three-stamp mill has been in successful operation there for some time.

Augusta.—North of Mammoth District, in the same range, is Augusta District, but little developed yet, although ore of superior quality has already been reached, and it promises to soon become among the foremost districts of this rich region.

Hot Springs.—This district is 30 miles west of Mammoth. It is limited in extent, but has a gold mine of extraordinary richness.

California.

Nevada.—The Grass Valley *Union* says: We were shown yesterday a piece of decomposed quartz, which was nearly half pure ore. It was said to have come from the famous Stockton ledge, near the Globe Ranch, about nine miles from town. Our informant asserted that he saw $1,375 which had been washed from two buckets full of the dirt. . . . . The *Transcript* says: We saw some rich rock from the Union ledge yesterday. It was filled with rich looking sulphurets. We understand that the company will soon commence to sink from a new level. They are now down with the incline about two hundred feet, and have a large amount of rock within reach. . . . . Karney & Co., prospectors, have struck some rich rock on the third extension of the Star Spangled Banner ledge. The ground of these parties is located near where the lead crosses Little Deer creek. They have only sunk a short distance, but the rock taken out is filled with free gold and rich sulphurets. . . . . The mining operations in blue cement in Little York township have been attended with unusual success this season. Quite a number of mills have been started and all are turning out large amounts of gold. On last Saturday, after one week's run, Neice & West cleaned up $6,000, and for six weeks the yield has not been less than $3,500 per week. Brown, Malloy, & Co., Williams, Cozzens & Garber have all been doing remarkably well. . . . . Gessler had concluded the purchase of the Union Jack mine. This mine is a western extension of the well known Ione, and is located a short distance from Grass Valley. The purchase was made for Schloss & Co., of San Francisco, at a cost of $50,000. . . . . The *National* says: We learn that the workmen engaged in running the Pike tunnel, on Bryan's ledge, succeeded yesterday in striking a ledge two feet in thickness, which promises to be a good paying one. A tunnel of eight hundred feet run in the ground, and a drift fifteen feet from the tunnel brought the ledge to view. The ledge is located on Union Hill, near the celebrated Burdett mine. . . . . The Prosper ledge is one of the chain of ledges running through the country in the neighborhood of Canada and Phelp's Hills. The Kistle Company located a claim upon the Prosper ledge last Summer, and since last Fall they have worked without interruption. The ledge is from ten inches to two feet wide, and the rock has paid from twenty to thirty dollars per ton. Last Fall several shares in the company sold for $30 per share. A share was recently sold for $150, which was afterwards bought back by the company for $500. They now have a shaft down fifty feet, where they have struck some excellent rock. A lot of eighty tons is being crushed at the French mill, and it is said the share purchased will pay double the amount paid for it. . . . . Feb., 26th, William Philips discovered a promising-looking quartz ledge a short distance above Southard's sawmill and not far from the Star Spangled Banner Grass Valley. The ledge appears to be of good size and the cropping shows considerable sulphuret ore. . . . . A recent crushing of seventy-five tons of rock from the Mohawk ledge yielded $80 a ton. The rock was crushed at Palmer's mill. . . . . $30,000—not $20,000—was the price paid by Cronise & Co. for the "Lucky Mine," in Grass Valley. The same parties have also purchased the Jefferson Mine for $48,000 and the whole property has been divided into 16 shares of $3,000 each. A contract for the erection of a mill has already been entered into, to be completed in 60 days.

Siskiyou.—The newly discovered quartz mines in Scott Valley, says the Yreka *Journal*, are situated in Cedar gulch on the west side of Scott river, between Sugar creek and Squaw gulch, and about five miles in a northwest direction. The mines were first discovered by George Scolds. He, however, did not publish his good luck, but went to work extracting the rich gold-bearing quartz, and packing it in flour sacks upon his back, across the hills to his cabin in the gulch next below. He was discovered at this by some miners working in the vicinity and, from his actions, thinking that he must have a "good thing," they watched him until he returned to his lode and found that he had struck a vein of the richest gold-bearing quartz that has ever been found in Northern California, or perhaps in the State. The vein can only be seen at the point where it was first found, in a small tributary of Cedar gulch, for the reason that the bed rock on both sides, and, in fact, throughout the whole gulch, is covered from two to forty feet in depth with earth. Scolds has only opened his lode about ten feet in length and from one to three feet in depth, and has taken out rock variously estimated by those who have seen it, to contain from four to six thousand dollars. The vein is only from two to six inches in width where it has been opened, but appears to be gradually widening as it goes down, and the rock will yield from three to ten thonsand dollars to the ton, and some is still richer—being more than half pure gold. Scolds, to prevent his rock from being carried off by curious prospectors, has sluiced his prospect hole full of mud, while he has started in below the lode to bring up a drain that will tap it at about the depth of fifty feet, which will probably be completed in about a week, when the question whether the lode is extensive or not can be determined. Other parties are running tunnels on the line of the vein in anticipation of striking it. Above the Scolds lodes, in the gulches at different places, pieces of quartz have been picked up in which gold is plainly to be seen with the naked eye, indicating that there must be other gold-bearing quartz veins higher up the gulch, but as the bed rock is very generally covered up with considerable depth, it is difficult to ascertain their exact locality. There is a ditch conveying water round the head of the gulch which can be made available to sluice off the soil and it is probable that other veins will soon be discovered, as parties are now upon the ground trying to negotiate for the use of water for that purpose

Placer.—The Auburn *Stars and Stripes* of March 7th, says: It is proposed by some of our citizens to form a company upon the plan of one recently organized in Grass Valley, to take hold of some ledge in the vicinity and prospect it thoroughly. In the Grass Valley company there are one hundred shares; each stockholder pays $5 on signing the constitution and by-laws, and one dollar weekly thereafter, and is limited to one share. A smaller company, with initiatory payments of say $2,50 or $3, and weekly payments of fifty cents, would furnish the means to perform all the work required to fairly test one ledge. . . . . We are informed that C. H. Dewey sold his entire interest in the Dewey lead—one fourth—some timo ago, for $10,000. Recently A. Breese sold his fourth interest in the same ground for $12,000, having in the meantime received, since the erection of the mill, dividends to the amount of about $2,500. . . . . Since the compromise was effected between the ditch owners and the miners in the vicinity of Michigan Bluff, the latter have been working with fair success. The Big Gun Company cleaned up, after a week's run, of which two days was on drift dirt taken out last Summer, and the remainder on dirt sluiced from the bank, about $2,000.

Butte.—The *Record* of Feb. 24th says: A few months ago we announced that prospecting for quartz had become quite general in the vicinity of Dogtown, Butte county. Parties owning one of the newly discovered ledges sent rock to Goldsmith Brothers, San Francisco, for assay, and have received the following returns. We quote the assayer's own words and figures: "After carefully assaying the ore left with us we find the following results: Gold, ounces, 3.64—$75 24; silver, ounces, 1.20—$1 56. Total value per ton, $76 80." It is our opinion that quartz mining in Butte is yet in its infancy. We have been shown specimens of rich quartz and assays from the hills of Butte far superior to anything we have seen from Montana, Idaho or Black Rock. . . . . Captain Ralph Bird, well known as a pioneer hotelkeeper here, has been rusticating in the mountains near Nimshew this winter, and, with a partner, working a claim on the bluff of Butte creek, which has been "paying out" more or less of nice smooth pieces all the time. As a specimen, a week's work of the two recently yielded the snug sum of $1,200. They panned out $350 in two days.

Shasta.—The *Courier* of March 3d, says that at Red Gulch in the southwestern part of the county, distance from town about twenty-five miles, Pierson has discovered a lode of copper-bearing rock, which, for fineness and richness, surpasses anything of the kind yet discovered hereabouts, and we doubt if Copperopolis can make as good a showing. . . . . Edwards arrived in town from Dog Creek in the fore part of the week, and, as an indication of what Dog Creek mines can do, showed a nugget weighing sixteen ounces—worth $275. That will do, though it is below the average of chispas frequently taken out in those placers.

Calaveras.—The San Andreas *Register* of Feb. 24th, says: Several parties in town have had some Mexicans prospecting the country, for some time past, for quartz veins. Last week they discovered a lode near San Antonio Camp, six or seven miles from San Andreas, which surpasses in richness anything yet discovered in this section. Three pounds of the rock, crushed in a mortar, yielded fifteen cents in gold dust; but it was impossible to save all the gold, enough fine gold being left with the sulphurets; probably, to make the actual yield twenty or twenty five cents per pound. This yield of fifteen cents makes the rock prospect $100 a ton; but it will without doubt yield more when properly worked so as to save all the gold.

Mariposa.—The *Gazette* of Feb. 24th says: Last week a very rich strike was made in the Cerro Rico quartz vein, owned by Jose del Carmen Rodriques, and some five or six thousand dollars taken out. The gold was very coarse, some pieces weighing from two to three ounces. The vein is situated on Bear creek, a short distance from the town of Colorado.

Sonoma.—A great excitement was created at Healdsburg, Feb. 21st by three gentlemen bringing in about sixty dollars worth of coarse gold, taken out a short distance from there in three days.

San Diego.—Judge Hollister has commenced working Wetherbee's gold mine, which has been abandoned for some time, but which all pronounce to be rich in gold quartz.

Michigan.

The Portage Lake *Gazette* states the February product of the Portage Lake mines as follows:—Quincy Mine.—January, stamps, 85,620 lbs., or 42 tuns, 1620 lbs. February, stamps, 155,510 lbs, or 77 tuns, 1510 tuns. Franklin Mine.—Stamp, 71,645 lbs.; barrel, 44,960 lbs.; mass, 13,630 lbs.: total, 130,235 lbs., or 65 tuns, 235 lbs. Pewabic Mine.—Stamp, 70,076 lbs.; barrel, 22,645 lbs.; mass, 17,465 lbs.: total, 110,186 lbs., or 55 tuns, 186 lbs. Huron Mine.—Stamp, 11,900 lbs.; mass and barrel, 66,780 lbs.: total, 78,680 lbs., or 39 tuns, 1680 lbs. Isle Royale Mine.—Stamp, 18,361 lbs.; mass, 39,060 lbs.: total, 57,421 lbs., or 28 tuns, 1421 lbs. Hancock Mine.—Mass, barrel and stamp, 26 tuns, 3 lbs. Albany and Boston Mine.—Stamp, 24 tuns, 975 lbs. Grand Portage Mine.—Mass, barrel and stamp, 23 tuns, 515. Calumet Mine.—Ingot Copper, 5 tuns, 1190 lbs. This makes the total February product 345 tuns or 1715 lbs.; which with the January product makes the total product for the year 637 tuns. . . . During the year ending March 1st the Evergreen Range mine produced 172 tuns of copper. . . With reference to the Minesota mine the *Gazette* says: The appearance of this mine for the past four or five months has not been as favorable as it has been during the two previous years it has been worked; though for the past three weeks a slightly improved change has been noticeable in the lower openings on the Portage lode. On the whole the Portage lode has very much decreased in width, and has a very broken appearance, as though disturbed by some great crossing, and is very much impoverished beyond what it was a twelvemonth since. . . . The Ontonagon *Miner* says that the progress made at the Caledonia mine in the way of openings,

for the force employed and the money expended, the past two years, has been very creditable, and will compare favorably, it thinks, with that of any other on the Lake. . . . Of the Franklin mine, it says: "There is, perhaps, no mine in the district that has as many prominent and perceptible evidences of future success as has the Franklin, though it is but a comparatively young mine. It may with propriety be termed the younger brother of the Pewabic and Quincy, and very like three brothers are they. The eldest (Pewabic) smaller and lighter, but very wiry and active, though a little worn by hard work; the second, (Quincy,) larger, but slightly erratic, and though superior to the eldest brother, yet not as active, doing what it has to easily and quietly, and without any visible manifestations of fatigue. The younger (Franklin) is still, and probably will be for years to come, looked upon by the other two as a boy yet, who, though exceedingly stout and healthy, cannot be asked or expected to perform such a day's work as they do, though they admit that if by necessity he was "pushed right to it," he could do as much as they could. Pewabic, feeling a little old, is quite certain of it, while Quincy, whose joints are still supple, does not feel quite so sure about it, so far as he is concerned. In the mean time, Franklin is working along, easily and good-naturedly, and has no particular desire to show how much strength he does possess, feeling that in due time it will all be called out and used to good advantage. But the days for heavy labor are rapidly drawing near, and already the young giant may be heard cracking his joints as if to assure himself that his bones and muscles are in good condition for the coming big day's work.

Montana.

With reference to the best routes from San Francisco to Montana, a correspondent of the *Alta* recommends that *via* Columbia River, and thus recapitulates the distances to be travelled:

From San Francisco by the Ocean to the Columbia River	565 miles.
From the mouth of the Columbia to Umatilla Landing	315 miles.
From Umatilla Landing to Old's Ferry	229 miles.
From Old's Ferry to the mouth of Reynolds' Creek	122 miles.
From Reynolds' Creek to Ruby City	34 miles.
Total distance from San Francisco by Ocean, and the Columbia River, etc	1256 miles.
Deducting the distance by water	1002 miles.
Gives the distance to Owyhee travelled by land	254 miles.

On the other hand, some one else recommends the overland route *via* Nevada. He says: "Through Ruby Valley, seventy-five miles, you have the benefits of the splendid farms, then into Clover, Thousand Springs Valley, and on to Goose Creek, a splendid country, all susceptible of cultivation, or nearly all, to within a short distance of the towns of Utah. All the hay and grain required by a stage line or freights can be raised on the road, or within four miles of it. The route will be from Austin to this place, 110 miles; through Ruby and Clover Valleys to Humboldt Wells, 90 miles; then to Thousand Springs Valley, 15 miles; through the Valley, 15 miles; then to Rock Springs, 10 miles; to Goose Creek, 14 miles; down Goose Creek, 20 miles; over to City of Rocks, 15 miles. Here you intersect the Boise and Walla Walla road. Then to Raft River, 10 miles; to Crossing of Raft River, 8 miles; to Birch Creek, 14 miles; Cedar Springs, 15 miles; Deep Creek, 18 miles; travel up Deep Creek, 6 miles; from this point to Hensley's Springs, 12 miles; to Blue Springs, 15 miles; to Point Springs, 15 miles; then crossing Malad River, over to Bear River, 10 miles. Here you intersect the road from Salt Lake City to Virginia, Montana, and here you find the Mormon Settlements, grass and water, splendid locations for ranches almost the whole distance, especially on Goose Creek and Raft River. These latter streams empty their waters into the Columbia River, Oregon, and have fine fish in them. Another important advantage to a stage line—they will will connect much sooner with the Overland Mail Company and telegraph lines. This route can be made much shorter. There are no high mountains to cross, and the road is now very plain the whole distance, and requires very little work to make it A No. 1." . . . . The gold product of Montana in 1865 is stated to have been $17,000,000.

Arizona.

The *Miner* of Feb. 14th says: The great amount of snow and rain that fell in the months of December and January has supplied the country with water to an unparalleled extent, and will naturally lead to extensive placer mining this Spring. . . . A correspondent alluding to some recent Indian raids near Tubac and elsewhere, says: The most remarkable raid, however, was on the blacksmith shop of the Vulture gold lode, one hundred miles east of La Paz. Most of the material, hammers, sledges, tongues, even drills, etc., were carried off. What is in the wind now? Have the Apaches blacksmiths and gunsmiths with them? . . . . Another correspondent writes to a San Francisco paper from Prescott, Feb. 18th: "Mining matters look very promising, I have seen a letter from Charles Berger in which he says he would, about the middle of this month, ship a 10-stamp mill from your city, which he will place in Big Bug District, where he has interests in three very promising lodes—namely, the Eugenie, Big Bug and Galena. There is a 50-feet tunnel run in the Eugenie and a 50-feet shaft in the Big Bug. Col. Woolsey's mill, which is located in the same district, will be ready to crush rock in about five weeks. Tyson and Coulter are negotiating to place their Wickenberg mill on the Sterling lode, which is about five miles from Prescott, as, should Mr. Phelps buy the Vulture lode at Wickenburg, he will erect a larger mill of his own. Various lodes are now being worked, and it is fair to presume that some of them will be rich. A great many placer miners are at work on Lynx creek, the Hasiamp and Big Bug. Some of them are making fair wages. Three or four companies are digging ditches to carry water on bars that prospect 2 and 3 cents to the pan on top and from 6 to 25 cents on and near the bed rock." The writer adds: "Our miners held a meeting at the Capitol building last evening, for the purpose of addressing themselves to Congress against the proposed sale of the mines. They perfected an organization and appointed a committee to draft resolutions expressive of their opinions in regard to the villainous schemes concocted by the little brother of the great Sherman, to wrench from their hands the fruits of their toil and privations in the wilderness, and turn it over to eastern Hidalgos. If Sherman's bill passes in the shape it is now in, miners might as well, and surely will, cease prospecting and working their lodes and abandon the country they have conquered from the savages."

Colorado.

Says the Miner's *Register* of Central City: The second piece of bullion taken off at the smelting works of James E. Lyon, weighs 1,860 ounces, 27 per cent. gold, worth $12,000; and that the average production of the Mammoth Mill, per week, for the last four weeks, has been three hundred ounces, something over five thousand dollars. We might add that the Ophir Company is getting out since the first of January, about five hundred ounces a month; that the Narragansett Company is averaging about 600 ounces a month; that the Gunnell Company is averaging 600 ounces a month; that the Black Hawk Company will do as well and better than that, it now having sixty stamps running; that the Philadelphia and Colorado Company will soon add another to this list; that the Boston Company's Mill is again started; that the Smith & Parmelee Company is mining with great energy, and only stopped i s mill for something more perfect in the way of treating ores; that the Briggs Company is running sixty stamps, and it never did run without paying largely, etc. Our production will average, during the season, perhaps three thousand ounces a week—at the rate of three million dollars a year. Added to this will be hundreds of tons of concentrated ore from the tailings, at every mill, which ought to be worth an average of one hundred and fifty dollars a ton. This can be treated by the Keith process or smelted; 1866 *will be the most prosperous year in the mines since* 1863. That much seems now assured.

Minnesota.

A correspondent writes from St. Paul's: "During the past year coal has been discovered at Redwood and gold and silver-bearing quartz at Vermillion lake. The extent and richness of the quartz mines will be decided the coming season. Two companies have already left, to be ready for operations early in the spring. The first company was under charge of Major Newson, an old resident of this city, and quite extensively known as editor of the *Times*, published here nine or ten years ago. The second company, which left ten days since, intend going by the trail direct to the lake. They are provided with train sleds, such as are used by the Red river men in their dog trains. They, however, will use one horse to each sled, instead of dogs. Plunging in the unbroken wilderness, in that high latitude, at this season, seems rash in the extreme, and, notwithstanding the completeness of their outfits, if they should encounter severe storms, we will hear of suffering, and may be death among their numbers.

Oregon.

The Oregon *State Jou nal* states that Waud and Moore are opening a coal bank about two miles south of Eugene City, which gives good evidence of being valuable. At the depth of sixty feet, it is of a quality much improved over that at the beginning of the tunnel. It is yet somewhat mixed with slate, but burns well. Waud discovered the croppings two years ago.

Idaho.

The Boise *Statesman* of February 17th, learns that the mine known as the Lawyer, near Placerville, has been sold in New York for the handsome sum of $39,000. The mine consists of sixteen hundred feet. The fortunate owners are J. L. Tiner, A. Mallet, James H. Hawley, L. Fisk, F. Payne and James Carr. . . . The destruction of property during the recent freshet foots up a large sum in the aggregate. . . . The Dalles *Mountaineer* says: They dig diamonds in Owyhee by colonizing ants on the diamond fields. The industrious creatures frequently bring diamonds to the surface, when the honest and industrious miner has nothing to do but to pick them up. . . . A dispatch from Portland, Oregon, February 27th, stated that the previous evening the steamer Cascade arrived there from the Upper Columbia river with 800 lbs. of treasure.

British Columbia.

A writer in the *Alta* states that the Hudson Bay Company, at their Fort Sheppard, took in from the few miners who were the pioneers, and who worked only a short time and under every disadvantage, some $27,000 in gold dust from the diggings, last fall, and the same company is expending about $75,000 on the steamer at Shaswap Lake, and in other ways in this connection, and they are not given to make such outlay without a very safe basis. Contrasting the present with 1858, when the Fraser river rush occurred, the writer continues: "In 1858, steamers went to Esquimalt, and the miners had to come around and bring their traps around to Victoria in boats at great risk and some expense, or over an Indian trail if by land. Now, steamers go into Victoria harbor, and direct to New Westminster, and land at convenient wharves. In 1858, a tent was considered very housey, and the bush, not bad. Now, plenty of good hotels offer a choice of accommodation according to means. In 1858, a lot of old, ungainly, rusty log buildings surrounded by a palisade, comprised the Hudson Bay Company stores, from which "grub," etc., was doled out to a post-office string of hungry miners through a hole in a door—money in at one hole, grub out at another—and the few other stores were shanties knocked up for the occasion, half the time without goods to sell. Now, the "Fort" has totally disappeared, and in its place, a very large, extra-substantial, brick warehouse looms up to view as you enter the harbor, full of goods, well arranged in all its departments, with plenty of obliging clerks, who will sell you anything from a skein of thread to a thousand barrels of flour, and wharves and sheds on the water front, not surpassed—according to extent—in this city. The shanties have been replaced by handsome brick stores, with fine stocks, and—thanks to the Free Port system—prices of nearly every article are very much lower than either here or Portland, the exception being principally in flour and bacon. In 1858, Americans—which term included all whites, not British subjects—were looked upon with distrust and some fear; the H. B. Co., having control, were indisposed to see the country opened and their fur trade injured, and American institutions and laws were ridiculed as compared with the English. Now, the people will welcome Americans as the saviours of the country; the credit of having built it up is acknowledged as mainly due to them The H. B. Co., are as anxious as any to have them penetrate where they will; the laws are being assimilated to theirs; the price of public lands is reduced from a pound to a dollar an acre, with liberal regulations for preemption; public schools are established; the currency is changed to dollars and cents; a homestead law passed; imprisonment for debt abolished; a liberal code of mining laws enacted; the 2 per cent. gold export duty rescinded, courts established, where decisions have been generally satisfactory to all parties; and finally—to prove the extremely favorable disposition toward foreigners now existing—influential members of the present Parliament are openly advocating the granting to foreigners equal rights of franchise with British subjects, with eligibility to office. In 1858, the few steamers that ran on Frazer River were unfitted for the route; the rates of freight and passage were enormous, and when landed, the miner found himself on the borders of a wilderness, traversed only by Indians' or trappers' trails; no taverns, except a cask of rum, a box of cheese and hard-tack under a tent, could be called one; the sky for covering, and the grub and blankets on his back between him and starvation and cold. Now, good steamers, and plenty of them, at low fares, compete for his custom; a cordon of macademized wagon roads lead to all the mining localities; wayside houses at convenient distances invite him to fill his body or rest his bones; farms are opened; stages on all the routes; fares and freight cheap; the packers and their wagons and mules from the deserted Cariboo routes, are flocking to the Big Bend route. Six years has cleared away all the difficulties of '58. The rush of '66 can go into the "ore" under the most favorable circumstances. There can be no doubt of the fact, that the Big Bend mines can be reached more cheaply and comfortably, and the cost of living there is less than any others—out of California—without exception. Compared with the Cariboo mines, two material points are in favor of Big Bend: While the former are deep diggings, very rich when reached, but very costly to reach and very uncertain, the latter are placer diggings, paying at once, and extensive enough to give every man a show, and, the climate being warmer, the district being further south and having a much lower altitude, the season in which work can be prosecuted is two months longer, beginning early in May and ending late in November. . . . James

McKenzie writes from Fort Colville, Washington Territory, to a friend, Dec. 17th as follows: "A few men came here a day or two since from French Creek, in the Big Bend. They say the weather is very cold up there, and only about ten men are wintering in the district, as there are no provisions to be had. One of the men took out $5,000 in three days on French Creek, and another took out one hundred and fifty-three ounces on a new creek in two days. It was very late in the season when these mines were found to pay. When the news came down here, all who could went up and staked off claims, and then came back to winter, determined to return for an early start in the spring. I have got a claim staked off. I think the Big Bend will turn out to be the greatest mining country on this side of the Rocky Mountains."

Mexico.

The San Francisco *Alta* of March 8th says, La Blanca Mining Company owns three mines in Sonora, the Blanca mine proper, the San Luis, and the Santa Carolina. The second of these mines has been vigorously worked, the two others are just being opened The San Luis and Carolina mines contain mostly smelting ores, which have for the last six months averaged about six hundred dollars per ton. The company possesses a mill of ten stamps, four smelting and four roasting furnaces, and work their mines according to the Mexican method, that is, they leave the ore standing in huge pillars of fifteen by eighteen yards, instead of as they do in Washoe, take out all the ore and timber the mine—taking out the ore solely from shafts and drifts. By this plan La Blanca Company have about thirty pillars standing in their San Luis mine alone, in rich smelting ore, ready to be taken out at a very small cost whenever they see fit, or when the vein should not be able to furnish ore enough for all their reducing works. In spite of the many dissdvantages under which they labored in consequence of the political troubles and the unsettled state of affairs in Sonora, the company, by their perseverance and good management, have at last met with merited success The greatest obstacle in their path was the scarcity of workmen, so that for the last half year they could only work with two smelting furnaces, which gave a monthly product of about eight thousand dollars. As there is a prospect of quiet being soon restored, they intend to work their reduction works to their full capacity. As the company do not owe a single cent, and having received by the last steamer from Mexico, fourteen thousand dollars, they were able to declare a dividend, and keep a respectable fund in reserve. We hope to see our other American enterprises in Mexico succeed as well. . . . About the beginning of March a prospecting party, under the lead of E. W. Morse, was to start from San Diego, for Lower California—Mr. Morse being determined to explore the mines of the frontier.

Nicaragua.

A Mr. Underwood—recently sent from San Francisco by parties anxious to form an American Colony—having returned, made a lengthy report, from which the following points are condensed: In minerals—gold, silver, copper, iron and lead abound; precious stones, such as the opal and jasper, have been discovered; and there are extensive beds of anthracite coal. There are immense forests of the finest timber, comprising mahogany, logwood, cedar and rosewood. The rich soil produces spontaneously over 60 different kinds of fruit, whilst it is admirably adapted to the growth of all the great staples of the tropics—indigo, sugar, cacao, tobacco, rice, cotton, coffee, etc., may all be, and most of them have been, successfully grown. In the mountainous range of the Sierra Madre, crude sulphur is found in considerable quantities, near the extinct volcanoes, and also nitre and sulphate of iron. Although the natives themselves are too indolent to make a proper use of their riches, England and France have already sent representatives of their respective energy and industry to Nicaragua, and some 40 mines are now being worked in the Sierra Madre Mountains, with great success. An English company, with arastras only, extracted 1,200 ounces of pure gold in the first eleven days of their operations. The gold is most frequently found in rotten quartz, and is worked and pulverized with half the labor and expense required in California; while there is an abundance of wood and water to propel machinery throughout the district, which is confidently believed to extend along the entire range of the Sierra Madre mountains, from one end of the State to the other. The mining laws allow each man to take up 200 varas of land, of which he becomes the *bona fide* owner, and all veins discovered on that area are his. The mineral veins are less distorted by volcanic action than those of California, and consequently are more easily traced and worked; and the mining region is mountainous, healthy and cool.

New Granada.

Correspondence from Panama, March 23rd, says: The Barbacoas gold mines continue to create considerable excitement here, more from the fact of numbers of people coming down from California bound thitherward than from any great interest felt in them. The last steamer brought down upwards of one hundred and eighty miners, and the British steamer having sailed the day previous to their arrival, the Panama Railroad Company put on the steamer Parkersburg and sent them to Tamaco. She sailed hence on the 16th, under command of Captain Thomas M. Cash, and will probably be back in a couple of days. Among the passengers who went in her were Dr. Little, the United States Consul at this port, who wished to see what could be done in the way of establishing a consular agency there. Should these mines prove anything like what they are represented, the rush from California there will be very great, but as yet we are really quite unprepared to say anything definite in regard to them. . . . The steamship Sacramento had subsequently arrived from San Francisco with sixty-one more passengers for the Barbacoas mines. . . . Thus far about $30,000 had been received at Panama from these new mines. The Panama papers caution Californians and others against rushing there, at least until more is known of the extent of the mines, and do not talk very encouragingly of the prospects

Oil Summary.

Pennsylvania.

The Humboldt refinery, near Plumer, Venango County, recently took fire, and was totally consumed, as also over 1000 barrels of oil. . . . A dispatch from Petroleum Centre states that the heaviest losers by the disastrous fires which occurred on the Hyde and Egbert farm on Saturday morning, are the following: W. H. Haldeman, 4,000 bbls. of oil in tanks and barrels, and 2,000 empty barrels; Haldeman & Hassan, 3,000 bbls. of oil in tanks, insured; Miller & Edwards, 325 bbls. of oil in boats on the creek; J P. Coates, 1,000 bbls. of oil in tank insured in the Home Insurance Company of New Haven Conn.; Capt. Wallerson, lost seven or eight boats and barges, valued at about $4,000; J. R. Frick lost 3,000 bbls. of oil, mostly in tank. He also owned the Pittsburgh House (a large hotel) and a wareroom, which were destroyed. His loss altogether, is about $20,000. He had $3,800 insurance on the hotel in an Eastern company. Among the number of wells destroyed are the following: The Coquette, Thirty-four, Olive Branch, Hallister, Eagle, Jersey and Maple Shade. The Coquette company lost 12,000 bbls. of oil in tanks. The entire loss is put down at 25,000 bbls. of oil and $125,000 in property. Twenty boats and barges loaded for shipment were also destroyed. . . . The Clarion *Democrat* says that there was a good show of oil struck last week in the Fiscus Well at the depth of 1,250 feet. The well is on Deer Creek, and owned by the Clarion River and Beaver Oil Company. It is being tubed and will soon be tested. We are also informed that an attempt was made to take the tubing out of the Pocahontas Well, which has been standing idle for some time, and it commenced to flow oil in considerable quantity as soon as it was agitated. We would not be surprised to hear of several large wells in a short time in this county. . . . . Some one writing from West Hickory to the Erie *Dispatch* says: I have been here the past three days examining the oil wells, etc. I am neither a prophet nor the son of one, but I predict that within 90 days that place will equal Pit Hole in its palmiest days. From my observations this is the best and most reliable oil territory in Venango County. I have visited 19 wells that are producing oil in paying quantities. They vary in depth from 125 to 400 feet, and are yielding from 10 to 100 barrels per day of heavy lubricating oil, worth $22 per barrel at the wells. . . . . The Toronto *Chronicle* remarks: On Thursday last, Pearce & Neyhart, of this place, closed a sale of 57 acres of oil land on West Hickory to the Damascoville (Ohio) Oil Company at $500 per acre. Near this tract, and on the property of Pearce & Neyhart, are two wells—385 and 430 feet—with fine shows of oil; one is being pumped with increasing yield. The above property is in what is called the "belt," extending from the Economite Wells, "over the river," and taking in the Flats, the famous Dennis Run, Dingley Run, Parshall Run, Jones' "cut off," head-waters of Gordon Run and the tributaries of West Hickory. When we consider that one year ago this was all branded as "dry" territory, except a few limited spots, will it not open the eyes of capitalists to the fact that no investment now offering holds out such inducements as does real estate in this vicinity? Following the line toward Dennis Run, we come to the eastern branch of the West Hickory, where several wells are going down on the lands of Mr. A. Wallace. A little to the north, but in the same belt, on the head waters of Gordon Run, is a well down 470 feet—centre bit fast. In this well two distinct sand-rocks have been passed; in the second was a good show of oil and gas; the third sand-rock is looked for at the depth of about 550 feet.

Kentucky.

A well, located in Fleming county, Ky., near Poplar Plains, recently struck a heavy flow of salt water and petroleum at a depth of 175 feet. . . . Prof. B. Franklin, just returned from a trip through the southeastern oil regions of Kentucky and Tennessee, writes: "In Kentucky there is a present lull, and some anxiety The first companies made such prompt and remarkable strikes that extravagant expectations were indulged in all quarters. A first-class flowing well, struck on the first trial at a depth of about two hundred feet, was a surprise even to the most sanguine of oil operators, and the whole neighborhood became inflated with boundless hopes. It was impossible then to talk about leases. No price within bounds was named for them. Now, there is just as unreasonable a reaction. The great well is undoubtedly a puzzle to those who have had only Oil Creek experience, and the cry is rising that because there is no sandrock in this new oil region there cannot be any profitable quantity of oil. It is amusing to travel among the wells going down, under 'men of long experience on Oil Creek,' along the Cumberland and its tributaries. Every one has found the sand-rock! They show you specimens of it—some gray, and some white—and all sharp and granular. They are confident now of success, because here are debris of the oil-bearing rock. In every case they have found only limestone. It is plain to any person who is accustomed to the collation of facts, with the purpose of comparison and analysis for the sake of discovering general laws, that this oil region of the southwest differs so materially from those of Pennsylvania, Virginia and Ohio, that experience in the latter is of no use in the former, beyond the mere mechanical knowledge and dexterity it may give—of no use, I mean, to the great mass of men, who merely learn routine and not principles. There has been oil found in this southwest region in very large quantities, and of an excellent quality. Apparent to any geological eye are ample sources from which the oil may have been supplied. There is very good reason to suppose that large reservoirs of it still exist underground. These reservoirs are to be sought for, and if sought with half the persistency shown in Venango county, will, doubtless, be found in sufficient abundance to make a profitable return on capital expended."

Alabama.

An exchange says that the oil fever is raging in Alabama, and a well is being sunk on Capitol Hill, in Montgomery. Nearly fifty companies are organized. . . . The New Orleans *Times* says: "A private letter, received in this city, states that oil has been struck by parties who were boring for it at Gadsden, Alabama, on the Coosa River, and that the whole country thereabouts was in a state of intense oleaginous excitement. Several prominent oil-promising regions of our own State have recently exchanged hands at high figures, and already the work of boring has been commenced near Lake Charles, on the Calcasieu River, where a sandstone formation was struck at a depth of 120 feet. Quite a number of natural oil springs have been found in the same vicinity and in the interior of the State. A valuable spring has also been discovered within two miles of Red River, above the raft, and the prospects on the Ouachita River, in Arkansas, are extremely flattering."

Wyoming.

The Salt Lake *Vidette* says: "Not far from Fort Caspar, or Platte Bridge, on the old Oregon and California route, and about 130 miles west of Fort Laramie, there are situated some coal oil springs which run fifteen hundred gallons a day. They flow out from the foot of a steep mountain, in which is a coal bed, or strata, four feet wide. The soil around is sandy, and from a crevice in the sandstone springs the petroleum stream. This location is in the Black Hills, six miles from the Red Buttes. The oil was assayed in San Francisco, and yielded seventy-two per cent. of the pure stuff. These springs were discovered last summer by J. I. Brannan, and are owned by him and a few of his friends. We learn that Brannan has an offer from a company in Montreal to sell these springs. The purchasers will erect a refinery on the grounds so as to be able to supply these Territories with light this coming summer or fall."

Ohio.

More new wells have been struck in the Blue Rock Region, near Zanesville, and the excitement there is intense. Oil is struck at from seventy to one hundred feet down, and the yield is usually from thirty to sixty barrels per day, of heavy, lubricating oil. This oil is pronounced the most valuable now produced.

Missouri.

During the past two years some eight or ten wells have been going down in Carol county. The work has been slow from lack of means, but now some energetic capitalists have taken hold, and soon the oil question in that region will be decided.

California.

From the Bennet Well, situated on Corte Madera creek, near San Gregorio, San Mateo county, news has just been received of the well flowing. In the latter part of last summer, the old well, two hundred

feet deep, was abandoned, and a new one commenced. At ninety feet they struck a small vein of warm salt water, from which the gas came so strong as to make the workmen sick. At one hundred and four feet the well commenced flowing—on the 27th of last month—and continues to flow. Considerable water runs with the oil, but it is thought that from one to two barrels a day can be saved, as soon as the necessary tanks are erected. The oil is of a yellow color and burns splendidly. This result makes the country from San Mateo to the Lexington well and town of Santa Cruz, especially Pescadaro creek section, probably the most valuable in the State. From San Mateo, or Mayfield, it is only a pleasant drive to the oil grounds. . . . The Humboldt *Journal* says: Oil Creek Company Well down 100 feet; prospect good. Fortuna Well down 356 feet. In this well the prospect is very flattering, and stockholders are in high spirits—they look for big quantities of oil to be struck at any moment. Buckeye Well down 160 feet. It is in good condition, and those interested in it have high hopes of success Sutter and Allen Well down over 200 feet. They have a fine show of oil in this well, and the quantity increases as its depth is increased. Jeffrey and Irwin Davis (Mattole) Wells are progressing sotisfactorily.

Tennessee.

A correspondent writes that Obey River—a branch of the Cumberland River—abounds in oil springs, and shows all along its banks and in its upper bed large ledges of bituminous black slate. Several companies have taken land on Obey and its branches. Five wells are in process of boring. Of these, two, at very shallow depths, have struck lubricating oil of excellent quality; and all the others are drilling away at the hard limestone, and cutting big crevices, out of which invariably rise great volumes of gas with drops of oil. . . . Professor B. Franklin, of Burlington, New Jersey, declares that "If Nature's signs mean anything, and actual sucis any warrant for future expectations, then the Cumberland and its tributaries in Kentucky and Tennessee are good oil regions.

Colorado.

The Leavenworth *Conservative* says that Mr. Cassidy, managing the oil wells near Canon City, Colorado, has taken 700 gallons of refined to Denver for sale—the first oil from far Western wells, which pump from twenty-five to thirty barrels daily.

Mississippi.

The Mississippi and Alabama Oil and Mining Company has just been started at Columbus, Miss., with a capital of $300,000 in 6,000 shares of $50 each, par value.

Canada West.

The *Observer*, after referring to advantages of the surface country at and round Tilsonburgh, Canada West, and declaring that the geological features of the country will be found just as favorable, proceeds to say: "The rocks round here are of the Devonian formation, which is the formation situated immediately below the carboniferous or coal-bearing formation. Although the formation in other countries is known as the "old red sandstone," from the prevalence of that peculiar kind of rock, in this country scarcely any sandstone is to be found in it. The unmistakable signs of the formation are to be found on all the lands. Fossil branches of trees lie embedded in the corniferous lime rock, which crops out at some points here; and, by the use of the microscope, the rock itself can easily be seen to consist of the remains and exuviæ of marine insects and animals. That the sea once passed over this region of country is beyond doubt, and thus, in a great measure, accounts for the disturbed state of the surface. This corniferous limestone, which has been agreed upon by all parties to be the true oil-bearing rock of Canada, is at this point 480 feet thick, as has been ascertained by actual experiment. At this depth the drill struck upon the white and soft underlying oriskany. This would give this place an advantage of nearly 100 feet over other regions, where, according to geological reports, this limestone is only from 300 to 400 feet in thickness. This fact proves that there is, therefore, room for more oil here than in other regions. Another fact is equally plain, that where oil exists only in small quantities, it never shows itself at the surface in Canada or any other place. If there be only small quantities, it will find plenty of space to contain it in the rock in which it is formed. All past experience proves the truth of these remarks. Wherever oil has been found showing itself at the surface, oil has invariably been found in large quantities. In proof of this may be mentioned Ennisillen, Petrolia, Bothwell, and Oil Creek. It may be equally true that oil in paying quantities may be found in places where it does not show itself on the surface. Judging from the quantity of oil that is to be found on the surface at this place, and which has been flowing probably for the last 500 years, we conclude that oil must exist in large quantities some place not far from here, and that, from the depth of the rock here when it is discovered it will be found in such quantities as to astonish the continent. A short time will determine the question, as some one of the 20 or 30 wells now going down must hit it, and when it is struck Cræsus will have been a beggar in comparison with the owner of that well.

Italy.

Recent accounts from Leghorn relate that there is a general rise in the price of foreign articles imported there, and especially in petroleum, of which the consumption is said to be so large in Italy that the supply is not equal to the demand. The price has so much increased lately, that companies have been formed at Turin and Genoa for working and purifying the produce of the petroleum springs which exist in Parma and Calabria.

The Holy Land.

A correspondent writes from Paris to a contemporary that he had just arrived from the Holy Land, after having spent two years in "prospecting" it, and, says he, "I am perfectly convinced that coal oil can be obtained in any amount, in various parts of the country I have passed over."

The "Little Giant" Quartz Mill.

The following telegram and letter received by H. A. Jones, Esq., treasurer of the "Cosmus" Silver Mining Company, No. 158 Broadway, New York, fully illustrates the favor with which the first of these mills has been received on the Pacific coast:

[TELEGRAM.]

SAN FRANCISCO, Oct. 22, 1865.

To H. A. JONES, *Treasurer Cosmus Silver Mining Co., New York:*

"Little Giant" mill accepted, pulverizes one thousand pounds per hour, eight horse power, seventy sieve (5,000 meshes to the inch), all right.

(Signed) WM. MUSGRAVE, Supt.

[LETTER.]

RUBY CITY, Idaho, Feb. 16, 1866.

H. A. JONES, Esq., *Treasurer Cosmus Silver Mining Co., New York:*

DEAR SIR—The mill is running, and working splendidly. We started yesterday morning at nine o'clock, and drew a large crowd to witness the event, in fact, they kept coming all day. The mill is a *perfect success*, and of its size, has, by good judges, been pronounced the best arranged, and the most convenient mill they ever saw.

(Signed) E. H. DEWEY, Fin'l Agt.

I am now prepared to build, complete, or furnish the iron work for these mills, at short notice, and guarantee them to reduce, without a crusher, 1,000 pounds per hour, from the size of an egg to dust that shall pass through a sieve of 5,000 meshes to the square inch, the power required being from five to eight horse. With a crusher in connection, as is represented in the cut, this mill will easily reduce one ton per hour. Having tested this mill practically on the hardest kind of quartz rock, it is now offered on its own merits, and not as an experiment. Mills furnished on ten days' notice. Further information can be had, and orders filled, on application to R. H. VANCE, 25 Nassau st., cor. Cedar, N. Y., or to S. B. PIKE, Miners' Foundry, San Francisco, Cal.

The Transmutation of Metals.

The alleged discovery of the grand reve of alchemists of olden times—the "philosopher's stone"—whereby silver, mercury and copper can be transformed into gold, has been just announced in a memoir entitled, "The Transmutation of Metals," presented to the Academy of Sciences, by M. M. Henri Favre, doctor of medicine, chief editor of *La France Medicale*, and Juste Frantz, Metallurgist; and on the evening of the 17th ult., M. Favre delivered a most interesting lecture on this subject to—as may have been expected—a densely crowded audience. The following is a resume of their doctrines. Hitherto, the science of chemistry has been founded upon two terms essentially distinct—extraction and combination. Analysis represents the first, and synthesis the latter. Now to these two terms we must add a third—transmutation, always suspected to exist but never proved. To do this it must be understood that all bodies in nature owe their respective properties solely to the fixations of forces passing momentarily to a static state, but always "evolutive" in a disposable field of action. These substances are then all produced by the action of one original and common principle brought into action. Their transmutation is effected by condensation, or by the displacement of the forces which hold them for the moment is equilibrio. It is an exchange between the dynamostatical properties of each metal and the dynamotensional efforts exerted by the agent employed; and since the metals, simple in their chemical order, are compound in their dynamo-static state—it follows that the transmutation of metals can always take place, provided they are in media, in which the suitable elementary conditions will exist to effect the different changes. Such are the principles on which depend the operations of metallic transmutation. They have their laws. The first is that of solutions. It is on the difference of the solubility of the metals that all the secret of transmutation emperically depends. The decisive experiments by which the authors of this discovery demonstrate the transmutation of silver into gold, show that it depends on two destined operations—the first is to change the state of the silver, producing another substance which is not yet gold; the second consists in bringing the condition of this new undetermined substance to the state of pure gold. The process is thus described: A certain quantity of chlorhydrate of ammonia is dissolved in liquid ammonia; this salt should be reduced to a fine powder. If the solution be turbid it is to be filtered; chloride of silver, perfectly white and humid, is then added, and the bottle well shaken up. The chloride of silver is dissolved, the solution becomes yellow and deposits a precipitate of the same color which must be collected most carefully. The characters of this powder are—1. When introduced into aqua regia it is completely dissolved, and a new addition of ammonia precipitates it. 2. It is not fulminating. 3. Lastly it furnishes gold by the galvanic pile—that is to say when placed between the two poles of one of Bunsen's elements. Here is produced the most remarkable phenomenon—a transformation and a separation simultaneously. The ammonia is the dissolvent of the chloride of silver, and at the same time the reaction of the metal transformed by the chlorine.—*London Mining Journal.*

Donations to the Public by Discoverers and Inventors.

It not unfrequently happens that a discovery is made, or a contrivance invented, which, although of great general utility, is of such a nature that its author does not deem it desirable to secure it by patent, and hitherto great inconvenience has been felt in such cases, owing to the difficulty of making a formal and legally valid publication of it, so as to prevent its being afterwards patented by another, to the prejudice of the legitimate owner, who would probably be charged royalty for using his own property. A complete solution for the difficulty has now been found by a citizen of the United States, and the importance of that solution being made known will, it may reasonably be opined, cause the name of Davis Embree to be long and favorably known by non-patenting inventors, not only in England, but in every country where industrial pursuits are carried on. The example which he has so fortunately set will, undoubtedly, be often followed in Great Britain, and it cannot be supposed that so smart a notion will be permitted to pass unnoticed in the United States, in France, in Belgium, or elsewhere; the advantage which must accrue from its general adoption can scarcely be estimated.

Mr Davis Embree has occupied the position of Supervising Inspector under the (United States) Steamboat Law of August 30, 1852, and might, therefore, reasonably be judged capable of deciding the best means of preventing incrustation in a steam-boiler; but, even assuming it to be worthless, the system which it inaugurates is one of the utmost general benefit. Mr. Davis Embree has forwarded his specification and other documents relating to his invention as a present to "the government and people of the United Kingdom of Great Britain and Ireland," accompanied by a notarial act transferring or relinquishing all his right to take a patent therein for the invention or discovery described in the circular attached. The deed of gift, with the accompanying documents, are forwarded through the ordinary channels to the proper authorities—her majesty's commissioners of patents; and the invention thus gets regularly placed on record and printed, like the specification of a patent: the inventor thus attaining his object—the invalidation of any subsequent patent for the same discovery.

In the case in question, the documents have been received through the United States Minister at London; but it will be obvious that all that the commissioners of patents would require is, that an invention or discovery shall be thoroughly described and ascertained, and that the documents containing the description, and the statement of results obtained, shall be properly authenticated—by declaration, for instance, before a commissioner authorized to administer oaths. The invention would then be as patent as if letters patent were actually granted, whilst the cost to the inventor would be 1s. or 2s. 6d., an outlay which would be amply compensated for by the circumstance that all future disputes as to the novelty of the invention (presuming it to be novel at the time of making the declaration), would be effectually prevented. The advantage which would result to the public from the general adoption of the system would be enormous, and we do not think any complaint could justly be raised if the whole of the now large surplus derived from the patent fees were expended in printing these gratuitous specifications. The justice of the procedure is, at the same time, self-evident, since, if an inventor be willing to relinquish his rights for the public good, it is but reasonable he should be secured, at a nominal cost, whatever advantage may result from the formal publication of his invention.—*London Mining Journal.*

Patent Claims.

INTERESTING TO MINERS, MILLMEN, METALLURGISTS, OIL-MEN AND OTHERS.

The following claims have recently been issued from the United States Patent Office:

53,396.—Valve for Pumps.—Henry P.M. Birkinbine, Philadelphia, Pa.:

First, I claim the valves and valve seats of a pump so constructed as to form a water cushion, substantially in the manner and for the purpose set forth.

Second, The combination of the double-faced valve, F, F', with the valve, G, having cups for forming a water cushion, the whole being constructed and arranged substantially as and for the purposes set forth.

Third, The arrangement of the valve, G, seats, F, stems, H, H', H", and yoke, I, all constructed and combined, substantially as and for the purpose set forth.

53,399.—Steam Generator.—Geo. B. Brayton, Boston, Mass.:

I claim a steam generating apparatus composed of compartments constructed and arranged substantially as described.

And I also claim the use of a vessel for the generation of steam, made with openings, a a a, and partitions surrounding the same, substantially as described for the purpose specified.

53,410.—Balance Valve for Steam Engines.—John W. Carhart, Troy, N. Y.:

I claim, First, The recess, i, in the end of the plug valve, A, constructed and operating substantially as and for the purpose described.

Second, The arrangement of the screw, m, yoke, n, set screw, r, and cross bar, q, with the plug-valve, A, and shell, B, constructed and operating substantially as and for the purpose set forth.

53,434.—Balance Beam for Boring Oil Wells.—John Bodine Frazier and Homer Wickes, Conneantville, Pa.:

We c aim the weight box, E F, with the straps, G, key, H, and rollers, 1 and 2, in combination with the beam, B C, constructed as described, and for the purposes set forth.

53,435.—Amalgamator.—Henry A. Gaston, Austin, Nevada.:

First, I claim the rotating screw, C, operating within a cylinder or case, D, situated within the amalgamating pan, B, substantially as herein described for the purpose specified.

Second, The inclined partitions, n, arranged between the case, D, and the amalgamating pan, B, and with reference to the openings, S, substantially as herein set forth for the purpose specified.

53,440.—Furnace for Treating Auriferous Ores.—Amos E. Griffiths, Philadelphia, Pa.

First, I claim the arrangement of a cupola immediately over a water cistern for the treatment of metal bearing minerals, substantially as set forth.

Second, In combination with a cupola, C, and chimney, F, I claim the reversed pipe, D2 and suction fan, E, substantially as set forth.

Third, I claim passing the fumes from heated metallic ores on mineral bearing metals, over wet blankets or other porous substances, for the purpose of condensing such fumes, and depositing the metals suspended in them.

Fourth, I claim the arrangement of the chimney, F, pipe, G, branch pipes, G1 G2 G3 G4, with the sluice boxes, L and H, substantially as set forth.

53,442.—Valve Gear for Steam Hammers.—Hugh Hamilton, Newburgh, N. Y.:

I claim the arrangement of levers, L and N, in combination with link, K, and ram, A, for one, and with rod, n u, lever, W, and the slide valve for the other lever, which enables the blacksmith to work single acting and double acting steam hammers in the easiest possible manner, as described.

53,444.—Process of Reducing Refractory Gold, Silver and Copper Ores.—Charles W. Harvey, Buffalo, N. Y.:

I claim the reduction of refractory gold, silver and copper ores, in common blast furnaces to the degree of obtaining pigs or bars of white metal therefrom, by combining and smelting therewith, either the carbonate of lime, soda, muriate of soda, or other alkali or slag, substantially as described.

53,451.—Portable Tank for Oil, Etc.—Joel F. Keeler, Pittsburgh, Pa.:

I claim, First, The hatchway, h h, in combination with the steam pipe, d, or their equivalents, in the construction and use of portable tanks.

Second, The hollow cover, f, constructed and used substantially in the manner and for the purpose described.

53,467.—Pump.—Jacob Michel, Rochester, N. Y.:

I claim the combination and arrangement of the valve seat, D, made to adjust lower or higher to give greater or less play to the valve, the valve, E, provided with the flange, l, and water-packing grooves, m m, and the piston rim, C, made in a single piece, the whole operating substantially as and for the purposes herein set forth.

53,536.—Drill-feed for Artesian Wells.—Thomas J. Levegroove (assignor to himself and Henry Baldwin, Jr.), Philadelphia, Pa.:

First, I claim feeding the drill-rope from the bull-wheel over the end of the walking-beam through a series or system of pulleys, substantially in the manner described.

Second, I also claim the combination with the bull-wheel and the pulley, H, on top of the derrick of the pulleys, I J K, or their equivalent, substantially as and for the purposes set forth.

RE-ISSUE.

2,214.—Improved Blasting Compound.—Louis Ludovice and Louis Ludovice, Jr., New York City, assignees of Moriz Nowark, of Williamsburgh, N. Y. Patented May 24, 1864. Antedated March 18, 1863:

First, I claim the combination of chlorate of potash, nitrate of potash, and ferrocyanate of potash with each other, and with a substance capable of evolving gases, such as carbon or equivalent materials, substantially as and for the purpose described.

Second, The combination of chlorate of potash, nitrate of potash and ferrocyanate of potash with binoxide of manganese, substantially as and for the purpose set forth.

Third, The use of bichromate of potash, in combination with chlorate of potash and nitrate of potash and ferrocyanate of potash, substantially as and for the purpose described.

Fourth, The applicationof a solution of chlorate of potash, nitrate of potash and ferrocyanate of potash to paper or other vegetable materials capable of being formed into cartridges and protected by some water-tight compound such, for instance, as those above specified, for the purpose set forth.

Mineral and other On-dits.

☞ **Dr. C. J. Jackson**, of Boston, has been giving the Academy of Sciences in Paris an account of some of his observations in California and Nevada. He says the silver ores of Austin, Nevada, consist in the undecomposed portions of the veins of sulphate of silver and red sulphide of antimony. In decomposed parts of the vein are chloride, iodide and bromide, the latter being formed by double decomposition from the action of external influences. A fragment of the ore thrown into the fire of a blacksmith's forge is at once covered with spangles of reduced silver. At Austin, all the veins are quartz ore and imbedded in fieldspathic granite. Their thickness varies from a few inches to three feet. He had himself seen the ores yielding $1,000 to the ton, and the average was $200, the cost of extraction being $80 to the ton. The cost is high at Austin because the ore has to be brought from the mountains a long way off. At Virginia City the ores yield only forty dollars per ton, but as they do not have to be roasted, the cost is less, and they are very profitable. Austin was unknown three years ago, but now there mines there, each yielding $1,000 a day.

☞ **Borings for copper near Frankenhausen**, in Central Germany, disclosed the presence of the largest and most beautiful caverns in all Germany. Two are 800 and 600 feet by 130 feet, and 40 to 50 feet high. The three caverns have nine ponds of water, and several bones were found in them.

☞ **The importations of copper ore into this country** from the Cape of Good Hope, by the mail steamers, are almost double what they were a twelvemonth since. The mail packet Saxon, which has just arrived from the Cape, brought nearly 150 tons of copper ore.

☞ **A coal bed has been found in the classic shade** of Mt. Olympus in Greece. There are three beds yielding a coal which contains twenty per cent. of ash. A railroad has been commenced to the mines, and the Mediterranean will soon draw its supply of coal from them.

All Sorts.

☞ **In October last, as some workmen were re**pairing the west wall of the Lausanne Cathedral, they came across a long iron box, securely fastened by iron bands. On being broke open it was found to contain a quantity of bones; and afterwards, being examined by the young but rising amateur anatomist, Mr. J. G. Clint, they were found to be those of a man, who must have been, when living, nearly 8 feet high, which opinion has been corroborated by Mr. J. Henderson, of London.

☞ **Amongst the patents lately taken out in France** are the following: A hygienic alphabet in gingerbread; a method of making head-dresses, caps, and pocket-handkerchiefs in paper; a mechanical fan, opening and shutting instantaneously; a machine for cutting stone by means of a system of points, reproducing minutely the relief required; an apparatus for making deaf people hear; and no fewer than ten patents for stopping railway trains.

☞ **Another lucrative trade which has sprung up** since the American war, is that in bones. Near Winchester there is a stack of bones as large as a range of warehouses, and they say that one hundred and sixty thousand skeletons of horses have been collected in the Shenandoah Valley alone. At Fredericksburg a bone mill has been set at work, and for five months past waggon-loads have arrived there daily.

☞ **Our Friend Jolliboy, who stops so late at his** club, and finds Mrs. J. invariably sitting up for him, is about to try the effect of Gale's non-explosive mixture, as a preventive of a blowing up. As the mixture is stated to be only powdered glass, he is going to crack a bottle or two extra at the club on the night fixed on for the experiment.

☞ **Norway and Sweden, which touch each other** on the map, and politically, are united, are separated physically by high mountains. This barrier is about to be pierced by a line which will connect the railway systems of the two countries, and eventually permit passengers to travel by steam from Stockholm to Christiania.

☞ **An unsuccessful attempt was made on the** 17th, at Millwall, to launch the mammoth iron-clad Northumberland. After running about one hundred feet she came to a standstill, and all efforts of the tugs to move her proved fruitless. The Prince of Wales and a brilliant assembly were present.

☞ **Hiram Powers, the sculptor, is a Sweden**borgian, and proposes to execute a statue of Swedenborg. In a recently published letter he says: "I am a 'New Churchman,' a 'Swedenborgian'—a 'New Jerusalemite,' without any reservation whatever; and I wish it to be known."

☞ **Among the "hen-persuaders,"** machines for cutting off the tops of eggs, picking the dirt from keys and the like, should be placed a recent invention, by an Englishman, of a machine for teaching children how to walk.

☞ **A gentleman who is passionately fond of** aquatic exercise *solus*, that is, pulling alone, always places a small mirror in the stern of his boat, in such a position as to reflect the horizon ahead. By this arrangement he is saved the trouble of looking over his shoulder.

☞ **In Para, Brazil, one of two short but useful** canals has been completed; the signal telegraph from the capital to the ocean at Ponta do Taypu has been finished, and a road through the timber encircling the city is in construction to the sea.

☞ **A vigilance committee is organized in Mon**tana. It numbers 1,000 members and is increasing. A perfect police system is maintained.

☞ **It has been calculated that the number of** cows in London is only sufficient to yield a tablespoonful of milk to each person daily.

Special Scientific Brevities.

☞ **The artificial production of gems is a subject** of fascinating interest. A new method of making rubies has been discovered. A mixture of fluoride of aluminum, with a little fluoride of chromium, is placed in a Hessian crucible lined with calcined alumina. In the midst of the mixture of fluorides is placed a small platina crucible, containing boracic acid. The outer crucible is well covered, and the whole exposed to a temperature sufficiently high to volatilize both the boracic acids and the fluorides. The vapor of the acid decomposes that of the fluorides, and fluoride of boron is formed, and crystals of the mixed oxides of aluminum and chromium are deposited. If the mixture of the fluorides be made in the right proportions, these crystals will have exactly the same composition, specific color, luster and other properties as the most perfect natural rubies.

☞ **The Parisians are now drinking water drawn** from the aelebrated champagne countoy of Aisne. The river Dhuis has been brought through an aqueduct eighty-four miles in length, seventy-four miles of which are solid masonry work, with an inclination of about six inches to the mile. A little over nine miles are in cast iron conduits across valleys, the inclination of which is about thirty-five inches per mile. The works were commenced on the first of June, 1863, and finished in September last. They cost sixteen million francs.

☞ **Within the past few months titanium metal** is stated to have been obtained in considerable quantities in Birmingham, by reduction with sodium, the resulting powder being fused into compact masses of large size; the similarity of titanium and iron in striking. Little doubt is entertained that ere long the new metal will be produced at above the price of silver, in which case many practical applications could, probably, be found for it. The metal is largely disseminated in nature, so that once introduced, a constant supply could be depended on.

☞ **In Melbourne, Australia, a quartz-crushing ma**chine capable of working up 300 tons a week has been constructed, which crushes and amalgamates at one operation. It is expected to do the work at a cost of 1s. 7d. (about 54 cents in coin) per ton, while the cost in a machine working 2,000 tons per week, is calculated at 6d. (12 cents in coin) per ton. The bed of clay beneath Philadelphia, which contains about 38 cents' worth of gold per ton, could be worked at these rates.

☞ **Two French engineers, pupils of the Ecole Cen**trale, have just started for Judea in order to survey the line of railroad in course of construction, and part of which will soon be thrown open to the public. We shall soon hear (says an English journal) of little boys shouting on the platform of the Bethlehem station La Patrie, Journal du Soir, Le Moniteur, Morning Star; while at the Capernaum terminus Guinness' stout and Yorkshire hams will invigorate travellers on their way to Jericho.

☞ **A new and cheap method of making oxygen** gas is by the action of the peroxide of cobalt, copper or iron, on a solution of ordinary chloride of lime or bleaching powder, aided by heat. Nitrate of copper may be used. A few drops of its solution poured into a solution of chloride and heat applied, will give a copious evolution of gas. Oxide of manganese does not answer as well, because it takes up some of the freed oxygen to form permanganic acid.

☞ **The new Atlantic Cable has the ten sheathing** wires galvanized instead of plain. With this exception, it is the precise counterpart of that used last year. Galvanizing is usually considered to weaken iron wire slightly. But in the case of the cable it is said additional strength is given; the wires stretch a little, so that the hemp has to bear its share of the strain and the breaking strain is really increased to nine tons.

☞ **Many philosophers connect the visitations of** cholera with meteorological influences, and have studied the phenomena recorded in cholera times. One of the most curious results found is the unusual height of the barometer. In 1832, when the epidemic was at its height, the barometer marked 30.60, 1849 it was 30.91, a height not likely to be reached oftener than once in thirty years. In 1854, it stood at 30.50. These are the maximum heights.

☞ **A hard factitious stone which, in some respects,** may take the place of Turkey or Arkansas oil stones, can be made by mixing 24 parts lithographic stone pounded into coarse powder, 4 borax, 1 saltpetre and 4 very fine emery. This is placed in a mould subjected to a heavy pressure—twenty tons to the square inch—and then heated to a white heat. Cutting or polishing wheels may be made in this way cheaper than they can be cut out of the hard stone.

☞ **M. Sayers, of Paris, has found that a brilliant** light, possessing very high actinic powers, is produced by the combustion of a mixture of 24 parts of well-dried pulverized nitrate of potash with 7 parts of flowers of sulphur and six of the red sulphide arsenic. This mixture can be sold at threepence a pound, and its light is therefore much cheaper than that of magnesium, to which it is said to be only very slightly inferior in actinic energy.

☞ **In coal mining, the temperature of deep work**ings should be carefully observed, and the salt water found in them examined, because the first will often give valuable hints as to the proper ventilation of the mine, and the latter may furnish evidence of their origin, whether forming part of the ancient sea in which the coal plants grew, or whether more recent waters.

☞ **A Russian Engineer has discovered an ex**tensive coal field about ninety versts from Turkestan. The coal is said to be of excellent quality, and the Russians will now be able to carry out their plan of establishing a fleet of steamers on the Syr Daria, which has hitherto proved impracticable in consequence of the want of fuel in those parts.

☞ **At Chicova, Dr. Livingstone and his compan**ions found a seam of coal cropping out on the banks of the Zambezi, the properties of which were explained to the natives, who, on hearing them, shook their heads, and, with an incredulous smile, replied "Kodi!"—that is, "Really!" There was everywhere evidence of an immense coal field.

☞ **The Astronomer to the Liverpool Corporation** reports that during the recent storm, and taking the 24 hours ending 9 P.M., 24 of January, the extreme pressure of the wind was 10 pounds on the square foot.

☞ **Milk may be kept sweet by having it con**stantly in the presence of fresh water. In a milk room provided with tubs, in which the water is changed twice a day, milk will not be soured even by lightning.

☞ **The bulk of the atmosphere is such that if re**storative agencies were to stop, there would still be enough to support the same number of animals as are now on the earth for 800,000 years.

☞ **A Frenchman has made arrangements to de**scend to the bottom of the sea in a submarine vessel, and take photographs of submarine objects. He proposes to use electric light.

☞ **When the sewerage of Paris is complete, the** canals will contain not only the water and gas pipes of the city, but also the telegraph wires of the city companies.

☞ **Pouillet pointed out in 1824, that when a fluid** is absorbed by a porous substance, a rise in temperature takes place.

☞ **Experiments made on the Central Railroad** demonstrate that peat may be used in running locomotives.

AMERICAN
Journal of Mining.
[ILLUSTRATED.]

GEORGE FRANCIS DAWSON,
EDITOR.

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LONDON METAL MARKET.

THANKS.

Our best thanks are due to our brethren of the Press who have so kindly heralded our first appearance, and whose words of encouragement are duly and truly appreciated. Also to many kind friends and patrons, for substantial acknowledgments of the value of our Journal. Our duty and pleasure it will ever be, to deserve these favors, and be worthy of the hopes of our many friends. The vast circulation of our Journal, while it presents innumerable advantages—also entails upon us many arduous labors. Yet we feel confident that our readers will generously overlook any trifling errors, omissions, or defects which the first few numbers must unavoidably present.

QUARTZ AND MINING.

As the rich gulch and placer mines of California, Colorado, Montano and Idaho, are gradually washed out, the attention of both miners and capitalists has been naturally directed to Quartz, which has been justly termed the mother of gold. In quartz veins is found securely locked up, the precious treasure, in almost inexhaustible quantity. Such veins as are free from sulphur, and comparatively so from the presence of base metals, yield up their riches readily. But where these elements exist in greater or less degree in the ores, the difficulty of extracting gold has heretofore been very great. Indeed, it seemed at one time as if the refractory ores of Colorado especially, were about to bid defiance to all the efforts of Science and Art to unlock their hidden treasure.

At last, however, American genius has triumphed over this, as it is destined to triumph over every difficulty. For we are now assured that several of the many processes, which have lately occupied the attention of practical men, have proved successful. We are very frequently asked by men of means whether we consider Quartz mining as safe a business as the ordinary commercial business of the country; and from all the light that we possess—and our position is such that we obtain a vast amount of reliable information—we invariably and emphatically answer that we *do* consider the business of Quartz mining as safe, and much more profitable, than any ordinary business enterprise.

We cannot see how any great loss can be made where a good substantial mine is taken as the basis; where a sufficient amount of capital is embarked in the enterprise; and where that capital is judiciously expended with prudent care and wise forethought upon the legitimate development of the property. In many instances these favorable circumstances have not existed; perhaps the property originally was next to worthless, or there was not sufficient capital to operate the works; or the administration at the mine was reckless, stupid, or dishonest.

While it is unquestionably true that a few of the Quartz Mining Companies organized, have failed to realize the hopes of their stockholders; it is none the less true that very many have made the business profitable. And now when new processes have proved successful, we may reasonably look forward to satisfactory results from every company which has an honest basis.

During the past few days we have been greatly pleased to observe renewed interest being awakened in this great branch of the mining business. Meetings of stockholders have been held—additional working capital subscribed and paid in—experienced miners are now selected to act as superintendents at the mines—more attention is being paid to the details of management—a greater determination is evinced to get out ore, and generally we notice a better feeling everywhere present among those interested in mines.

We hail these things as the bright harbingers of a new and better era in the history of that great interest to which we have devoted all the energies of our life.

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While this is so, it is no less true that it behooves all our citizens who are interested in mining, to see that the foundations of our future greatness are now securely laid upon an enduring and solid basis. To bring to bear upon our mines all that the light of science can impart, all that the experience of the past can furnish, should be the aim, as it certainly is the desire, of all parties who have given the subject the attention it so well deserves.

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It appears that the rock is 114 feet below the surface at Fulton street, and gradually inclines upward, until at about Fourteenth street it is within 2 or 3 feet of the surface, and so continues to the north end of the island.

BOILER EXPLOSIONS PREVENTED.

A large party of scientific gentlemen, among whom were some prominent officials, met the other day for the purpose of inspecting the inventions of Mr. Norman Wiard for preventing steam boiler explosions. The experiments were conducted on a boiler similar to that used for locomotion. The whole of the water therein, when the fire was started, was below the grate; without the new apparatus, the boiler above the grate would have been red hot in a few minutes—seventy square feet of the upper heating surface in the crown sheet, or upper tubes, being uncovered by water. By means, however, mainly of a chamber, a float and three valves, the pressure of the steam in the boiler adjoining the chamber, forces up the coldest water from the bottom of the boiler, to take the place of the escaped steam from the chamber. As the water rises the escape valve shuts, and a portion of the coldest water is brought into contact with the hottest steam. If the steam is superheated, the pressure in the chamber becomes greater than the pressure in the boiler, and as the water cannot return, it passes from the chamber through a third valve, opening outward into a perpetual basin, and thence into the boiler.

During the experiments, the thermometer showed that the steam was superheated only about 15 degrees, and the experts present judged, from the quantity of steam escaping from the safety valve, that the boiler was generating at least as much steam as would be the result of the same fire under ordinary circumstances.

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PETROLEUM.—Number Two.

By Francis E. Engelhardt, Ph. Dr., Professor of Chemistry in St. Francis Xavier's College.

Petroleum and substances of a similar nature are found in the rocks of all ages, from the tertiary to the lower silurian, and I may also add, the Azoic age—since the great naturalist, Alex von Humboldt observed a stream of naptha issuing from mica slate near Cape de la Brea and Cape Cirial in the Gulf of Cariaco in Venezuela—but occur chiefly in the limestones, sandstones and schists that are distributed through the rocks of those ages.

The existence of petroleum in the limestone of the lower Silurian is evident, not only from the bituminous odor perceptible when heated, but especially from its filling the cavities and petrefacts of this rock. For instance, we find Petroleum in the Bird's eye limestone of the Trenton group, at Montmorency, Canada. The oil that issues from the wells on the great Manitoulin Island in Lake Huron is supposed to come from the Utica slate; and the springs at Guilderland, near Albany, whose surface is covered with oil, are derived from the Hudson River shale, both belonging to the Hudson period. According to Prof. A. Winchell, copious oil wells have been bored in the lower silurian in Kentucky and Tenessee. In the upper silurian petroleum is found more frequently. We meet with it at Albion mills, near Hamilton, coming from the red shale of the Medina epoch, and in Monroe county it has been observed in the Niagara limestone of the Niagara epoch.

Ascending in our geological scale, from the silurian or the age of mollusks, to the Devonian age, or that of fishes, we find here the first petroleum deposits that are of commercial value. In Canada, at Enniskillen, near St. Claire, above one hundred oil wells have been sunk into the corniferous limestone, the lowest rock of the Devonian age. The Marcellus shale, the next in the order, is so bituminous that it was once considered a depository of coal. Immediately above there comes first the Hamilton group which gives rise to the oil wells in Western New York, and secondly the Genesee slate, whence the oil wells of Mecca, in Ohio, draw their supplies.

The sandstones, limestones and slates which overlie the Genesee group, belong to the two next groups of rocks that have hitherto been richest in oil deposits in the United States of America. The deepest wells on Oil Creek are supposed to occur in the Portage, or the lower, and the more shallow wells in the Chemung, or the upper, of the two groups. The last group of the Devonian Age is the Catskill group, in which there are wells, but, so far as is known, of no importance to commerce.

The carboniferous age, or the age of coal, is in the lower periods; those of the subcarboniferous and lower carboniferous are of no interest to us, since no wells of importance have been sunk. In the next—the lower coal measure—oil wells occur at Beaver and Smith's Ferry, Pa., in the middle coal measures, on the Monongahela River, and in the upper coal measures at Marietta, Ohio. According to Professor Silliman, who lately visited the oil regions in Southern California, oil issues also from a bituminous shale, which belongs either to the cretaceous or tertiary period.

Such, then, are the groups of rocks in North America that contain Petroleum, and we have thus passed very rapidly through about twenty groups of rocks of a thickness from 20,000 to 24,000 feet, (the Azoin and Californian groups, of course, excluded) supposing they were arranged one above the other in the order I have stated. But such is not the case in nature; where one or two groups are formed overlying each other, the rest are generally absent, nor do geologists assert that oil could be found in every one of them wherever they occur on our continent. This much may be said; that oil and similar substances have been observed in the whole of them, in one or other locality, and that the appearing of oil on the surface is not always a true indication that oil will be found in the stratum below in sufficient quantity to pay for the first outlay for the ground and the boring of the well, nor that the non-appearance of those oil signs on the surface is a certain proof of its absence, as is amply shown by the oil wells at Smith's Ferry, on the Ohio River.*

The geographical distribution of the oil bearing rocks of North America rivals, if it does not exceed in extent, that of the coal fields. They are said to reach from the southern extremity of the Ohio valley north to the Georgian Bay, Canada West, and from the Alleghanies East, in Pennsylvania, to the southern limits of the bituminous coal fields. This was already well known to Alex. Von Humboldt, who states in his Cosmos that, passing over from Ireland to the continent of America, a basin of Devonian sandstone is found 2,000 miles in length, commencing in the State of New York, and reaching to the Father of Rivers—the majestic Mississippi—that is to say, over a territory of 200,000 square miles. The States in which Petroleum has been found are Virginia, Maryland, Pennsylvania, New York, Illinois, Ohio, Michigan, Missouri, Kentucky, Tennessee, Kansas, Texas, California and Nevada. Among the foreign localities for Petroleum and Bitumen are Greenland, Canada, Mexico, Bermudas, Cuba, Trinidad, Barbadoes, Central America, South America, England, Scotland, France, Germany, Italy, Switzerland, Russia, Cape de Verd, Ionian Islands, Wallachia, Albania, Georgia, Caucasus, Palestine, Persia, Hindostan and China. Some of these localities are very remarkable. R. C. Taylor says, in his great work on coal, that in Venezuela, at Marindo, a bitumen is found that burns with a smell of vanilla, and is said to contain a large quantity of Benzoic acid, deriving its origin, probably, from the decomposition of trees which contained Benzole. At Maracaibo, in the same State, is a lake 250 miles in circumference, which has, at its north-eastern margin, a mine of asphaltum, the bituminous vapors of which are so inflammable that, during the night, phosphoric fires are continually seen, which, in their effects, resemble lightning. They occur more frequently in times of great heat, and are called the lanterns of Maricaibo, since they serve both as lighthouses and as compass.

South of Cape de la Brea, in the same State, is a submarine volcano, which occasionally boils up and discharges a quantity of Petroleum, and on the eastern shore of the same island is another volcano, which throws up masses of bitumen.

The Trinidad asphaltum lake occupies the highest land in the island, and emits such a strong odor that it is sensibly perceived at a distance of ten miles.

The entire Island of Cuba is impregnated with bituminous matter, and Petroleum wells have been known, more than two centuries ago, to issue from the serpentine rocks; hence Havana was originally called Carine, according to the early history of Cuba, because ships were careened and pitched in the harbor with the bitumen found on the shore.

* The above remarks on the Geology of Petroleum are a condensed statement on the subject by Mr. Sterry Hunt and Dr. Stephens.

AMERICAN
Journal of Mining.
[ILLUSTRATED.]

GEORGE FRANCIS DAWSON,
EDITOR.

By publishing contributions, the JOURNAL OF MINING *does not necessarily endorse the positions assumed by contributors.*

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By Francis E. Engelhardt, Ph. Dr., Professor of Chemistry in St. Francis Xavier's College.

Petroleum and substances of a similar nature are found in the rocks of all ages, from the tertiary to the lower silurian, and I may also add, the Azoic age—since the great naturalist, Alex von Humboldt observed a stream of naptha issuing from mica slate near Cape de la Brea and Cape Cirial in the Gulf of Cariaco in Venezuela—but occur chiefly in the limestones, sandstones and schists that are distributed through the rocks of those ages.

The existence of petroleum in the limestone of the lower Silurian is evident, not only from the bituminous odor perceptible when heated, but especially from its filling the cavities and petrefacts of this rock. For instance, we find Petroleum in the Bird's eye limestone of the Trenton group, at Montmorency, Canada. The oil that issues from the wells on the great Manitoulin Island in Lake Huron is supposed to come from the Utica slate; and the springs at Guilderland, near Albany, whose surface is covered with oil, are derived from the Hudson River shale, both belonging to the Hudson period. According to Prof. A. Winchell, copious oil wells have been bored in the lower silurian in Kentucky and Tenessee. In the upper silurian petroleum is found more frequently. We meet with it at Albion mills, near Hamilton, coming from the red shale of the Medina epoch, and in Monroe county it has been observed in the Niagara limestone of the Niagara epoch.

Ascending in our geological scale, from the silurian or the age of mollusks, to the Devonian age, or that of fishes, we find here the first petroleum deposits that are of commercial value. In Canada, at Enniskillen, near St. Claire, above one hundred oil wells have been sunk into the corniferous limestone, the lowest rock of the Devonian age. The Marcellus shale, the next in the order, is so bituminous that it was once considered a depository of coal. Immediately above there comes first the Hamilton group which gives rise to the oil wells in Western New York, and secondly the Genesee slate, whence the oil wells of Mecca, in Ohio, draw their supplies.

The sandstones, limestones and slates which overlie the Genesee group, belong to the two next groups of rocks that have hitherto been richest in oil deposits in the United States of America. The deepest wells on Oil Creek are supposed to occur in the Portage, or the lower, and the more shallow wells in the Chemung, or the upper, of the two groups. The last group of the Devonian Age is the Catskill group, in which there are wells, but, so far as is known, of no importance to commerce.

The carboniferous age, or the age of coal, is in the lower periods; those of the subcarboniferous and lower carboniferous are of no interest to us, since no wells of importance have been sunk. In the next—the lower coal measure—oil wells occur at Beaver and Smith's Ferry, Pa., in the middle coal measures, on the Monongahela River, and in the upper coal measures at Marietta, Ohio. According to Professor Silliman, who lately visited the oil regions in Southern California, oil issues also from a bituminous shale, which belongs either to the cretaceous or tertiary period.

Such, then, are the groups of rocks in North America that contain Petroleum, and we have thus passed very rapidly through about twenty groups of rocks of a thickness from 20,000 to 24,000 feet, (the Azoin and Californian groups, of course, excluded) supposing they were arranged one above the other in the order I have stated. But such is not the case in nature; where one or two groups are formed overlying each other, the rest are generally absent, nor do geologists assert that oil could be found in every one of them wherever they occur on our continent. This much may be said; that oil and similar substances have been observed in the whole of them, in one or other locality, and that the appearing of oil on the surface is not always a true indication that oil will be found in the stratum below in sufficient quantity to pay for the first outlay for the ground and the boring of the well, nor that the non-appearance of those oil signs on the surface is a certain proof of its absence, as is amply shown by the oil wells at Smith's Ferry, on the Ohio River.*

The geographical distribution of the oil bearing rocks of North America rivals, if it does not exceed in extent, that of the coal fields. They are said to reach from the southern extremity of the Ohio valley north to the Georgian Bay, Canada West, and from the Alleghanies East, in Pennsylvania, to the southern limits of the bituminous coal fields. This was already well known to Alex. Von Humboldt, who states in his Cosmos that, passing over from Ireland to the continent of America, a basin of Devonian sandstone is found 2,000 miles in length, commencing in the State of New York, and reaching to the Father of Rivers—the majestic Mississippi—that is to say, over a territory of 200,000 square miles. The States in which Petroleum has been found are Virginia, Maryland, Pennsylvania, New York, Illinois, Ohio, Michigan, Missouri, Kentucky, Tennessee, Kansas, Texas, California and Nevada. Among the foreign localities for Petroleum and Bitumen are Greenland, Canada, Mexico, Bermudas, Cuba, Trinidad, Barbadoes, Central America, South America, England, Scotland, France, Germany, Italy, Switzerland, Russia, Cape de Verd, Ionian Islands, Wallachia, Albania, Georgia, Caucasus, Palestine, Persia, Hindostan and China. Some of these localities are very remarkable. R. C. Taylor says, in his great work on coal, that in Venezuela, at Marindo, a bitumen is found that burns with a smell of vanilla, and is said to contain a large quantity of Benzoic acid, deriving its origin, probably, from the decomposition of trees which contained Benzole. At Maracaibo, in the same State, is a lake 250 miles in circumference, which has, at its north-eastern margin, a mine of asphaltum, the bituminous vapors of which are so inflammable that, during the night, phosphoric fires are continually seen, which, in their effects, resemble lightning. They occur more frequently in times of great heat, and are called the lanterns of Maricaibo, since they serve both as lighthouses and as compass.

South of Cape de la Brea, in the same State, is a submarine volcano, which occasionally boils up and discharges a quantity of Petroleum, and on the eastern shore of the same island is another volcano, which throws up masses of bitumen.

The Trinidad asphaltum lake occupies the highest land in the island, and emits such a strong odor that it is sensibly perceived at a distance of ten miles.

The entire Island of Cuba is impregnated with bituminous matter, and Petroleum wells have been known, more than two centuries ago, to issue from the serpentine rocks; hence Havana was originally called Carine, according to the early history of Cuba, because ships were careened and pitched in the harbor with the bitumen found on the shore.

* The above remarks on the Geology of Petroleum are a condensed statement on the subject by Mr. Sterry Hunt and Dr. Stephens.

MARKET REVIEW.

There is no particular change to notice in the Gold market, which has been steady and is now about $\frac{1}{8}$ of one per cent. lower than at the close of last week—say 127⅜.

In Foreign exchanges there is a slight decline. Good Bank Credits on London, at 60 days, 106½; at short sight, 107⅝; Commercial, 105 to 106; on Paris, at 60 days, 5.35 to 5.30; at short sight, 5.27½ *a* 5.26¼.

There is rather more demand for money. Rates 6 per cent. in place of 5 per cent. last week. Loan on Calls—first-class collaterals, 5½ per cent.; best paper, 7 *a* 7½ per cent.; good business notes, 9 to 11 per cent.

In the Stock Market there is little activity. Government bonds are quoted thus: 7-30's offered at 100¼, for first series; 100⅛ for second, and 100 for third; 5-20's wanted at 104, and 10-40's at 91⅝. Some important operations have lately been carried on by Secretary McCulloch, in converting short bonds into obligations of a longer date—the 5-20's have thus been increased by nearly five millions.

Railroad shares irregular: Michigan Southern, which ranged from 105 to 82¾ on Thursday, to-day are quoted 81½; New York Central, 91½; Erie, 74½; Hudson River, 108; Reading, 109⅜; Cleveland and Pittsburg, 79¼; North Western, 25; North Western preferred, 54¼; Fort Wayne, 89½; Rock Island, 110½.

The metal market shows a slight decline in prices; pig iron of $5 per ton throughout; American pig selling at $40, Scotch at 42 *a* 45. In steel no alteration to note. Copper somewhat lower. In tin no change; the stock of pig tin here and in Boston is 30,000 slabs against 8,600 same time last year. Prices of lead are lower, but no actual sales to report. Zinc very dull.

With respect to petroleum we quote the following from the circular of J. A. Theriott & Co., brokers, 5 William street:

NEW YORK, April 6, 1866.

The advance in this market, noticed in our last circular, obtained under the favorable news from Europe, has not been sustained and prices are almost generally in favor of the buyers, more for present, however, than for future delivery. The receipts continue large, and are for the most part made up of Crude. But little Refined coming forward. The demand for oil "on spot" is quite small; and for future delivery it is but fair, as buyers are asking almost too great a concession on prices obtained last week. Crude oil on spot, 26 *a* 26½c.; future delivery, 26½c.; Refined in bond on spot, 38½ *a* 40½c.; future delivery, 44 *a* 45c.; Refined, free on spot, 58 *a* 60c.; future delivery 62 *a* 63c.; Refined, in bond, tin cases 49 *a* 51c.; receipts of petroleum in New York since Jan. 1st, 1866, bbls. 249,090; same time, 1865, bbls. 108,097. Exports of petroleum from New York, since Jan. 1st, 1866, bbls. 198,176; same time, 1865, 48,141.

In Philadelphia there has been more business done in Petroleum at an advance of 1 and 2 cents per gallon. Sales of 4000 barrels crude are reported at 22½ *a* 23½ cents, held now at 24 cents. Refined, in bond, 37 *a* 38 cents, held at 38½; receipts 2980 barrels crude and 1415 barrels refined. In Pittsburg the market is firmer, with a considerable amount of business doing. For crude, 14 cents in bulk, equal to 19 cents, barrels included. Refined, in bond, 32 cents; free refined, on cars, 50 *a* 51 cents.

With reference to foreign markets, in Liverpool the market is firm, at 1s. 1od. to 2s. 1d. per gallon. In London there is a somewhat better demand at 2s. to 2s. 1l. per gallon. The stock was 8,555 bbls., 101 cases refined, and 2,946 bbls., crude, against 13,835 bbls., 219 cases refined, and 202 bbls., crude at same date in 1865.

The Coal market is still unsettled. Sales from yard, large $8.50 per ton, small, $5.50; foreign dull. Gas coal still in demand at former prices; 16,000 tons, Scranton coal were sold on Wednesday, at $5.50 to $6.90. On the whole, an average advance of 25 cents per ton, except on stove, which was considerably lower.

The suspension of James H. Clapp & Co., of Boston, is announced. At a meeting of the principal creditors of Culver, Penn & Co., held at Meadville, on Thursday, the committee appointed to report on their affairs recommended that all the creditors enter into a legal arrangement for their release from their assignment, and stipulate therein that the debts of said firm shall be paid, in equal installments, in six, twelve, eighteen and twenty-four months.

The following quotations are made with reference to Banks in that district.

Oil City Bank, Oil City, Pa.	.75 per ct. dis.
Bank of Crawford County, Pa.	.62 per ct. dis.
Venango Bank, Franklin, Pa.	.10 per ct. dis.
Petroleum Bank, Titusville, Pa.	.10 per ct. dis.
All National Currency, broken or not	.PAR.

NEVADA STOCKS.

San Francisco Quotations.

LATEST BY MAIL.

NAME.	FRIDAY, March 2.		Sales per week Ending March 2	
	Open'g	*Clos'g*	*Shares.*	*Amount.*
Sierra Nevada	$	$	20	$ 152 50
Imperial	125	127½	612	66,887 00
Gould & Curry	925	925	11	9,925 00
Chollar—Potosi	350	355	219	72,071 00
Yellow Jacket	430	445	226	100,620 00
Bullion	60	64	156	7,898 50
Crown Point			32	33,890 00
Belcher	205	225	212	49,455 00
Overman	72½	63	634	40,104 00
Ophir	140	440	187	78,905 00
Hale & Norcross	1200	1215	38	41,360 00
Exchequer	7	7⅞	904	6,564 00
Savage	900	950	180	159,202 00
Empire Mill	200	208	26	5,230 00
Alpha	260	285	85	22,904 00
Blue Ledge			365	730 00
Lady Bryan	3	3	170	520 00
Daney	7	7	153	1,152 00
California Tunnel			210	632 50
Chas. Caney			40	25 00
Real del Monte	5	6⅛	65	325 00
Confidence	100	70	565	47,700 00

LATEST BY TELEGRAPH.

SAN FRANCISCO, April 4.

Name.	Bid per foot.
Gould & Curry	1075
Savage	1065
Potosi	385
Ophir	740
Hale & Norcross	940
Crown Point	1380
Yellow Jacket	875
Belcher	350
Alpha	480
Imperial per share	140

NEW YORK METAL MARKET.

[CORRECTED WEEKLY.]

ANTIMONY	Regulus, per lb	13 and 13 1-2 c.
	Crude	
BISMUTH		
BORAX		33 c.
BRIMSTONE		5 c.
	Crude, per ton	
COPPER, Ingot	Lake Superior, per lb. cash	29 *a* 30 c.
	Baltimore	
	Pig Chili	
	Bolts	
	Braziers	
	Sheathing	45 c.
	Yellow metal	34 c.
IRON—PIG	No. 1 Scotch, per ton	42 *a* 45 c
	No. 1 American	40
	No. 2, "	
	No. 1 Charcoal	
BAR	Swedish, ordinary sizes	150 00
	Amer. & Eng. refined	115 00 *a* 120 00
	" " common	105 00 *a* 110 00
	Rails, Amer. currency	85
	" Eng. gold	56
	Horse shoe iron	140 00 *a* 147 50
	Rods 5-8 and 3-16 round and square	1 22 1-2 *a* 1 85
	Band	145 00
	Nail rods, 5-8 and 3-16	1 22 1-2 *a* 1 85
	Hoops	145 00 *a* 215 00
	Sheets, Russian, per lb	32 *a* 35
	" English "	7 *a* 9 1-2
	" American "	25
	Boiler Plates, Eng	
	" Amer	
STEEL	Best cast in Bars, war	22
	Best sheet cast "	22
	Best cast circular saw plates 46 in.	28
	Double shear steel, war	22
	Single " " "	19
	Montague & Co. C. S. in bars	19
	Round machinefy cast	15
	Best German	15
	Govt. German	12
	Eagle German	13
	L. Blister, war	19
	W. Jessop & Sons, blister, war	16
	Double refined	24
	Stone Axe shapes	24
	Common blister	13
	2d quality sheet	19
	3d quality sheet	16
LEAD	American	
	German	8 32 *a* 8 55
	Spanish	8 32 *a* 8 55
	English	8 32 *a* 8 55
	Bar, per lb	10 1-2
	Pipe and sheet	14
TIN	Banca Govt., per lb., gold	27
	Straits	23 1-2
	English	23
TIN PLATES	IC, 10-14 prime charcoal	$15 00
	IX 10-14 " "	14 75
	IC 12-12 " "	15 50
	IX 12-12 " "	18 25
	IC 14-20 " "	16 00
	IX 14-20 " "	18 75
	IC 14-20 Roofing ch	14 00
	IC 14-20 " "	13 00
	C 14-20 " Coke	10 25
	IC 10-14 " "	11 75 *a* 14 00
SPELTER	American, per lb	9 1-2 *a* 10
	Foreign "	"
ZINC	Mussulman & Amer	13 *a* 13 1-2
SOLDER	No. 1	24
	No. 2	22

LONDON METAL MARKET.

LONDON, March 16th, 1866.

		£.	s.	d.	£.	s.	d.
COPPER	Best selected, Per ton,	99	0	0			
	Tough Cake & Tile "	96	0	0			
	Burra Burra "	98	0	0 *a* 100			
	Copper wire, per lb.			12¾			
	Do. Tubes "			13¾			
	Sheathing & Bolts per ton,	101	0	0			
	Bottoms "	106	0	0			
	Old (Exchange.) "	87	0	0			
IRON	Bars Welsh in London	7	10	0 *a* 8	0	0	
	Do., to arrive	7	10	0	7	12	6
	Nail Rods	8	7	6	9	5	0
	Do. Stafford in London	8	15	0	8	17	6
	Bars Do.	8	15	0	10	0	0
	Hoops Do.	9	15	0	10	10	0
	Sheets, single	10	7	6	11	0	0
	Pig No. 1 in Wales	4	5	0	4	10	0
	Refined Metal, Do.	4	0	0	5	0	0
	Bars Common Do.	6	15	0	7	5	0
	Do. Merch. Tyne or Tees	7	10	0			
	Do. Railway in Wales	6	7	6	6	10	0
	Do. Swede in London	11	10	0	12	0	0
	To arrive	12	0	0			
	Pig No. 1 in Clyde	3	17	6	4	7	6
	Do. f. o. b. Tyne or Tees	2	9	6			
	Do. Nos. 3, 4, f. o. b. Do.	2	6	6	2	5	6
	Railway Chairs	5	10	0	5	15	0
	Do. Spikes	11	0	0	12	0	0
LEAD	English Pig Common	21	0	0			
	Do. ordinary soft	21	5	0			
	Do. (W. B.)	22	10	0			
	Do. Sheet	21	10	0	21	15	0
	Do. Red Lead	23	10	0	24	0	0
	Do. White	27	0	0	30	0	0
	Do. Patent Shot	23	15	0	24	0	0
	Spanish	20	0	0			
	Sheets, per lb.		11				
	Wire "		10½				
	Tubes "		11½				
STEEL	Swedish in Kegs (rolled) per ton	13	0	0	14	0	0
	Do. (hammered)	15	0	0	16	0	0
	Do. in faggots	16	0	0	16	10	0
	English Spring	19	0	0	23	0	0
	Quicksilver per bottle	8	0	0 nom.			
SPELTER	Foreign per ton.	24	0	0			
	To arrive "	24	0	0			
ZINC	In Sheets	30	0	0			
TIN	English Blocks	91	0	0			
	Do. Bars in barrels	92	0	0			
	Do. refined	94	0	0			
	Banca	88	0	0			
	Straits	84	10	0 *a* 85	0	0	
TIN PLATES*	I C Charcoal 1st qu. pr. bx.	1	15	0			
	I X Do. 1st quality "	2	1	0			
	I C Do. 2nd quality "	1	13	0			
	I X Do. 2nd quality "	1	19	0			
	I C Coke	1	8	0 *a* 1	9	6	
	I X Do.	1	14	0	1	15	0
	Canada Plates per ton	13	10	0			
	In London: 20 s. less at the works.						
	Yellow Metal Sheathing per lb.			9¼			
	Sheets per lb.			9¼			
	Indian Charcoal Pigs in London	7	0	0	7	10	

* At the works, 1s. to 1s. 6d. per box less.

Gold.

In the wildest regions frequented by the nomad hordes of Central Asia, the traveler discovers the vestiges of former cultivation and wealth. But he can now perceive in such regions, that while he stands on the grave of an old civilization, he stands also on the borders of a new one. It seems certain, at least as regards Asia, which contains the bulk of the human race, that not only the stationary but the retrograde communities will become progressive—will be reached by roads, railways, river navigation, and Western commerce, and obtain the aid of Western capital and skill. And it seems equally certain that the pecuniary value of their produce will vastly increase; that they will need vast quantities of coin for its circulation; and that the question is one of importance whether coin enough for the purpose will be easily obtained. The steady decline in the produce of the gold fields of Victoria, from 2,761,528 ozs. in 1857, to 1,557,397 ozs. in 1864, might seem at first to justify a doubt on the subject; and the existence of a great gold region near the sources of the Nile, on which some writers have reckoned, is in Sir Roderick Murchison's opinion contravened by the evidence of Capt. Speke respecting the geological structure of the country. But the decline in the production of gold in Victoria has arisen rather from the migration of the miners to New South Wales and New Zealand than from a diminishing fertility of the mines. In fact, the gold fields of Victoria yielded more in proportion to the number of laborers in 1864 than either of the previous years; 77,942 miners obtaining 1,702,460 ozs. in 1862; 92,292 obtaining 1,578,079 ozs. in 1863; and 83,394 obtaining 1,557,397 ozs. in 1864. And in 1857, when the gold yield of Victoria reached its maximum, that of New South Wales only amounted to the value of £674,470; whereas it has been more than three times as much on the average for the last three years. From the Western States of North America, again, the supply of the precious metals seems likely to increase. In a recent report, the British Consul at San Francisco states it as his opinion that the production of the precious metals will increase for many years to come; and that when to this is added the produce of the rich mines in Nevada, Idaho, Arizona, and Oregon, there can be no doubt that the total increase will be very great. This anticipation seems confirmed by the fact that the exports of treasure from San Francisco in the fiscal year ending in June, 1864, amounted to the value of $51,264,023; the larger proportion being in the latter half of the period, and the entire sum being considerably greater than in any other year since 1856. From Mexico and South America great additional supplies may also be expected. Of Peru, the British Consul says, "Peru is one vast mine, which the hand of man has hitherto only scratched." To the produce of the mines must further be added the vast sums that the progress of commerce will restore to circulation from the hordes of Asia and Europe, which, even in Lapland, are great. Large sums of Norwegian money are said by Laing, in his "Journal of a Residence in Norway," to have disappeared in Lapland; the wealthiest Laplanders having always been accustomed to live, like the poorest, on the produce of their reindeer, and to bury the money coming to them from Norway in places where their heirs often fail to discover it. The movement we have discussed is one which tends to bring all buried and neglected riches to light; and we anticipate from it both an ample provision of money, and an increasing demand for it.—*North British Review.*

PETROLEUM.

NAME OF COMPANY.	CAPITAL.	PAR VALUE.	LAST DIVIDEND.	OFFICE.
NEW YORK.				
Adams	$ 500,000			
Aladdin	100,000	2 00		229 Broadway.
Alleghany	1,000,000	10 00		
Alleghany Oil and Lumber	100,000	100 00		113 Wall street.
Alleghany and Kinzua R Pet				80 Broadway.
Albert Gallatia	500,000	5 00		157 Broadway.
Allen Wright	1,000,000	10 00	2 per cent., Jan'y	27 Wall street.
American Oil and Mining	1,500,000	50 00	1 per cent., June	22 William street.
American Illuminating	1,000,000	10 00		46 Broad street.
American	500,000	100 00		10 Pine street.
Amity Oil	250,000	10 00		71 Broadway.
Amber	100,000	10 00		
Anderson	1,000,000	10 00		
Anticlinal Rock Oil	250,000	10 00		21 Wall street.
Artesian	50,000	25 00		155 Broadway.
Associate				
Atlantic	300,000	10 00		36 Pine street.
Atlas	75,000	10 00		33 Pine street.
Atlantic and Great Western				
Alamantine Oil Company	500,000	10 00		21 Nassau street.
American Petroleum	500,000	100 00		10 Pine street.
Artesian	300,000	2 00		8 Pine street.
Bainbridge	500,000	5 00		71 Broadway.
Ball Farm				8 Wall street.
Barry	200,000	5 00		81 John street.
Beech Tree	300,000	5 00		46 Beaver street.
Beekman	1,000,000	10 00		20 Broad street.
Bennehoff and Pit Hole	200,000	2 00	2 per cent., Jan'y '66	26 Pine street.
Bennehoff Run	500,000	100 00	7 per cent., September	8 Pine street.
Bennehoff Reserve	1,000,000	10 00		67 Wall street.
Bennehoff and Salm	300,000			
Bennington	400,000	5 00		24 Pine street.
Bergen Oil and Coal	2,000,000	10 00		4 Broad street.
Bennehoff Mutual	300,000	5 00		31 Nassau street.
Bissell Oil and Manuf'g	1,000,000			131 Water street.
Black Creek	300,000	2 00		13 Broad street.
Bliven				
Blood Farm	1,000,000	20 00		8 Pine street.
Boiling Spring and Deer Lick	2,000,000	10 00		10 Wall street.
Boston Petroleum	2,000,000		2 per cent., June	152 Broadway.
Bradley Oil	600,000	5 00	2 per cent., November	7 Nassau street.
Braxton County, (West Va.)				61 Cedar street.
Brevoort	500,000	10 00	2½ per cent., October	126 Maiden Lane.
Brooklyn	500,000	5 00		74 Broadway.
Brown's Run				
Black River	200,000	10 00		8 Pine street.
Blood Farm	5,000,000	100 00		10 Pine street.
Buchanan Farm	4,000,000	10 00		8 Broad.
Buchanan Oil and Ref'g	200,000	5 00		
Buck-eye State	600,000	2 00		111 Broadway.
Buena Vista				
Bunker Hill	1,000,000	5 00		155 Broadway.
Burkesville, Ky., Oil and Mining	1,000,000	100 00		60 John.
Burning Spring Central				
Burning Spring, (West Va.)				
California	1,000,000	100 00		69 Liberty.
Campbell's Run Oil & Min'g	300,000			
Cascade	500,000	5 00		80 Broadway.
Cattaraugus Oil	1,000,000	10 00		17 Nassau street.
Central	5,000,000	100 00		8 Pine street.
Cedar Creek and Ba'g Spng's	500,000	5 00		
Charter Oak				
Chemical	250,000	5 00		117 Wall street.
Cherry Creek	2,000,000	10 00		8 Wall street.
Cherry Run	500,000	2 00		71 Broadway.
Cherry Run and Shenango	600,000	5 00	May	37 Nassau street.
Cherry Run and Pittsburg	200,000	1 00		
Citizens	500,000	10 00		29 Beekman street.
Clarion Coal and Oil	1,000,000	10 00		81 John street.
Clark and Sumner	750,000	10 00		25 Pine street.
Clifton	500,000	10 00		71 Broadway.
Clinton	500,000	10 00	1 per cent., Dec. '65	
Columbia Oil (Pitts.)	2,500,000	50 00	3 per cent., August	42 Cedar street.
Combined	1,000,000	5 00		80 Broadway.
Commercial	3,250,000	100 00		159 Front street.
Commonwealth	1,000,000	10 00	1 per cent., October	71 Broadway.
Congress				
Conde Mutual	5,000,000	10 00		24 Pine street.
Consolidated (of N. Y.)	1,000,000	10 00		19 Broad street.
Constitution				
Continental				52 Wall street.
Cosmopolitan				
Cotter Farm	1,000,000	5 00		42 Pine street.
Crescent (of New York and Canada	1,200,000	10 00	$10 per share, Dec. '65	100 Broadway.
Cuba Oil	500,000	10 00		10 Pine street.
Connecticut Artesian	50,000	25 00		155 Broadway.
Dana				
David Crockett	1,100,000	10 00		18 William street.
Dawn (of Canada West)				22 Broad street.
De Kalb	350,000	10 00		30 Broad.
Devon	150,000	1 00		71 Broadway.
Dividead				
Duffas				
Dutchman Run	1,000,000	10 00		71 Broadway.
Duck Creek	1,000,000	5 00		161 Broadway.
Eclectic				
Eclipse	1,000,000	5 00		25 William street.
Elk River	1,000,000	5 00		61 Cedar street.
Empire and Pit Hole	160,000	2 00	2 per cent., Jan. '66	26 Pine street.
East Branch, Pa.	500,000			1 Park Place.
Eleanic	750,000	5 00		155 Broadway.
Elkton Coal and Oil	1,000,000	50 00		58 Liberty street.
Empire City	1,000,000	5 00	2 per cent., June	74 Broadway.
Empire City Oil	400,000	4 00		69 Wall street.
Enterprise Oil	100,000	10 00		115 Broadway.
Enniskillen	500,000	10 00		
Essex	500,000			
Eureka Amber Oil	600,000	5 00		157 Broadway.
European	100,000	10 00		54 William street.
Everett	300,000	10 00		74 Beaver street.
Ever Flowing				
Excelsior	500,000	5 00		74 Broadway.
Fair Farm				
Favorite				181 Pearl street.
Fee Simple, (of West Virginia.)	600,000	2 00		1 Hanover Square.
Fiehler				
First National	1,000,000	5 00	2 per cent., March	20 Broad street.
Flowing Oil	50,000	50 00		28 Pine street.
Forest County Oil	650,000	1 00		
Forest County Petroleum	500,000			
Foster Island	300,000	10 00		28 Broadway.
Fountain Pet	250,000	5 00	3 per cent., April	80 Broadway.
Fountain Oil	1,000,000	10 00		74 Broadway.
Fowler Farms	300,000	10 00		82 Broadway.
Fox Farm				
French Creek	1,000,000			
Frost	250,000	10 00		74 Broadway.
Fulton Oil (Johnson's)				
Fulton	600,000			
Garibaldi		5 00		71 Broadway.

NAME OF COMPANY.	CAPITAL.	PAR VALUE.	LAST DIVIDEND.	OFFICE.
Garland	500,000			
General Grant	500,000	5 00		25 Nassau street.
Germania	3,000,000	5 00		33 Pine street.
Girard	100,000			
Good Hope	750,000	10 00		
Granite State				
Great Western Consolidated	2,500,000	100 00		27 Wall street.
Great Eastern	3,000,000	10 00		
Great Kanawha	300,000	10 00		
Great Northern				
Green Island Oil Creek	300,000	5 00		74 Broadway.
Great Republic	500,000	10 00		25 Park Row.
Guild Farm	1,000,000	10 00		280 Broadway.
Governor Chase	1,000,000	5 00		25 Nassau street.
Hamilton	1,000,000	10 00		80 Broadway.
Hammond	500,000	25 00	5 p.c., 3 mos., to Aug. '64	
Hancock (of West Va.)				
Hard Pan	120,000	3 00	3 per cent., Feb. '66	
Harper Farm	1,000,000			
Harmon	400,000	5 00		171 Broadway.
Hazelton	250,000			
Henry Bend	300,000	10 00		64 Broadway.
Henry Camp	600,000	10 00		71 Broadway.
Heury Clay	500,000	10 00		
Heydrick Brothers	1,500,000	10 00	3 per cent., April	80 Broadway.
Heydrick	500,000	10 00	5 per cent., June	80 Broadway.
Hickory Island				
Hickory Farm	500,000	5 00		92 Maiden Lane.
Highgate	1,500,000	5 00		33 Pine street.
Hinman & Oakley				
Hoffman	1,000,000	2 00		8 Pine street.
Home	1,000,000	20 00		8 Pine street.
Homestead	250,000	5 00		17 Broadway.
Homowack				
Hope				
Hudson	250,000	10 00		67 Beaver street.
Hudson River	600,000	10 00		90 Maiden Lane.
Huguenot	400,000	5 00		128 Maiden Lane.
Huidekoper	200,000	100 00	3 per cent., July	22 William street.
Imperial Burning Spring	650,000	5 00		61 Cedar street.
Independent	750,000	5 00		42 Pine street.
Indian Rock Oil	1,000,000	100 00		73 Broadway.
Indiana	1,600,000	100 00		4 Broad street.
Inexhaustible	2,500,000	5 00		10 Wall street.
Ironsides	250,000	10 00		71 Broadway.
Irving	500,000	5 00		46 Cedar street.
Island	500,000	10 00	1 per cent., June	36 Pine street.
Ivanhoe	185,000	2 00		44 Pine street.
John Anderson	2,000,000	10 00		106 Broadway.
Keith Oil	250,000	5 00		71 Broadway.
Kanawha	500,000	10 00		154 Front street.
Kentucky National	2,000,000	5 00		
Ky. & West'n Va. Oil & Coal	1,500,000	10 00		6 Rector street.
Kenzua	12,000,000	10 00		
Knickerbocker Petrol'm	1,000,000	10 00	1 per cent., Aug., '64	139 Broadway.
Lafayette Petroleum & Coal	500,000	5 00		
Lamb Farms	500,000	20 00	3 per cent., July	31 Nassau street.
Lawrence Oil & Mining	300,000	6 00		2 South street.
Latonia Town & Oil	1,000,000	10 00	1 per cent., July	60 Broadway.
Leading (of West Va.)	500,000	5 00		
Lennox				
Lilly Run				
Little Hickory				
Little Kanawha & Elk River	6,000,000	100 00		61 Cedar street.
Live Yankee	250,000	1 00		78 Broadway.
Long Island				
Loomis Oil	150,000	1 00	3 per cent., April	71 Broadway.
Lubricating Oil	500,000	5 00		24 Pine street.
Liberty Oil	140,000	1 00		77 Cedar street.
Magnolia Oil	500,000	10 00		394 Broadway.
Mahoning Valley	1,000,000	10 00		3 Rector street.
Manhattan	50,000	2 00		73 Broadway.
Mammoth				
Maple Grove	250,000	5 00		41 Fulton street.
Magenta Oil	500,000	10 00		71 Broadway.
Maple Shade (of N. Y.)	500,000	10 00	1 per cent., Oct.	67 Wall street.
Marietta Petroleum	1,000,000	10 00		
Marietta Pet'm & Mining	1,500,000	10 00		51 Broad street.
Marietta Pet'm & Oil	1,000,000	10 00		14 Vesey street.
Marietta Run Oil & Coal	250,000	5 00		
Manross Oil	400,000	5 00		77 Cedar street.
McClintock Farm & Cherry T.	1,000,000	100 00		71 Broadway.
McTate	300,000	5 00		7 Nassau street.
McKinley	250,000	10 00	4 per cent., April	71 Broadway.
McKinley No. 2	250,000	10 00		142 Broadway.
Mendenhall Oil & Mining	2,000,000	20 00		
Metropolitan Oil	500,000	5 00		92 Broadway.
Metropolitan Oil & Coal	1,000,000	10 00		6 Rector street.
Michigan Central	500,000	10 00		10 Pine street.
Midas				
Middlesex Valley	500,000			
Mill Creek				
Miller Farm Oil	300,000	5 00		36 Pine street.
Mineral Pt. Pet'm Coal & Iron		10 00		71 Broadway.
Minerva	1,500,000	5 00		4 Cedar street.
Monongahela & Kanawha		5 00		78 Broadway.
Montana	1,500,000	5 00	3 per cent., Aug.	78 Broadway.
Mount Vernon	300,000	5 00	1 per cent., Jan.	154 Water street.
Muskingum	500,000	5 00		137 Duane street.
Muskegon				
Mud Creek Valley				
Musk Rat Run				
Mutual Benefit	500,000	2 50		130 Pearl street.
Mutual Interest				
Mohawk Valley	600,000	3 00		92 Broadway.
Newark	130,000	10 00		37 Park Row.
New Lisbon				
Napoleon				
National Oil	200,000	5 00		99 Maiden Lane.
New England	150,000	2 00	5 per cent., Mar.	60 John street.
New Lebanon	150,000	5 00		6 Wall street.
New York & Allegany	250,000	5 00		134 Maiden Lane.
New York & Canada	500,000	50 00		29 Broadway.
New York Oil				
New York & Boston	500,000	5 00		12 Wall street.
New York & New England	1,200,000	5 00		57 Broadway.
New York & Conn.	750,000	7 50		69 Broadway.
New York & Chicago	500,000	10 00		28 Broadway.
New York & Ohio	600,000	50 00		111 Broadway.
N. Y., Phila. and Balt	300,000	1 00		71 Broadway.
New York & Phila.	1,500,000	5 00		57 Exchange Place.
New York & Pa.	2,000,000	10 00		156 Broadway.
New York & Providence	300,000	10 00		28 Broadway.
New York & Liverpool	1,000,000	10 00		71 Broadway.
New York & West Va.	500,000	10 00		137 Broadway.
New York & Pa. Pet'm	500,000	5 00		50 Broadway.
New York & Bothwell				
New York & Hughes River	1,000,000	10 00		
New York & Ky. Oil	1,000,000	100 00		
New York & Ky. Pet'm	500,000	5 00		
New York & Maricta	200,000			

PETROLEUM—Continued.

NAME OF COMPANY.	CAPITAL.	PAR VALUE.	LAST DIVIDEND.	OFFICE.
New York Oil Creek	500,000	5 00		108 Wall street.
New York & Pa. Oil	1,000,000			
New World (of West Va.)	500,000	10 00		
Normal	500,000	5 00		71 Broadway.
North Star				
Noble & Delamater (of N. Y.)	300,000	3 00		67 Wall street.
Noble Farm	600,000	5 00		74 Broadway.
Noble Well	500,000	25 00	2½ per cent., Feb.	7 Pine street.
New York & Kentucky Oil & Mining	100,000	100 00		99 John street.
North American	1,250,000	10 00		74 Broadway.
Northern Light	1,000,000	10 00	3 per cent., Feb.	181 Pearl street.
Nesshannock Creek Oil	1,000,000	5 00		39 Nassau street.
New York & Ohio Mutual	150,000	10 00		71 Broadway.
Ocean	1,500,000	100 00	2 per cent., July	57 Broadway.
Oceanica	2,000,000	10 00		58 Broadway.
Ohio	1,000,000	100 00	2 per cent., Mar.	4 Broad street.
Ohio, Pa. & Va.	1,000,000	5 00		37 Nassau street.
Ohio & Ky. Pet'm & Mining	1,000,000	5 00		594 Broadway.
Oil City Pet'm Co.	500,000	10 00	3 per cent., Oct.	8 Pine street.
Oil Creek	1,000,000	20 00	3 per cent., July	7 Nassau street.
Oil Run	1,000,000	5 00		66 Wall street.
Old Dominion	500,000	10 00		71 Broadway.
Oriental	48,000	12 40		71 Broadway.
Pacific	1,000,000	10 00		17 William street.
Pacific Coast	5,000,000	100 00		61 Cedar street.
Palmer	500,000	10 00		155 Broadway.
Peninsula (of Ohio)	400,000	5 00		62 William street.
Parent Oil Co. Guyandt W. V.	7,000,000	10 00		
Petroleum Consolidated				
People's Pa.	1,000,000	5 00		27 Courtlandt street.
People's Mutual	1,000,000	10 00		155 Broadway.
Phil Sheridan	2,000,000	5 00		25 Nassau street.
Phillips	200,000	5 00	1 per cent., Mar., '65	
Pit Hole Consolidated				
Pit Hole Creek (of New York)				
Pit Hole Farms	150,000	3 00		26 Pine street.
Pit Hole Mutual	1,000,000	25 00		
Pit Hole & Two Mile Run	2,500,000	25 00		
Point Pleasant	500,000	5 00		82 Broadway.
Pit Hole C'k, Alleghany river	1,000,000	25 00		70 Broadway.
Pit Hole Creek	500,000	10 00		62 William street.
Plainfield	300,000	5 00		34 Pine street.
Pleasant County Oil	500,000	5 00		11 Wall street.
Porcupine	1,000,000	5 00		71 Broadway.
Powell Oil & Coal	300,000	5 00		66 Wall street.
President	5,000,000	25 00		71 Broadway.
Prescott				
Prince Run of West Va.				
Radiant	50,000	10 00		
Rainbow Creek of Ohio	500,000	5 00		175 Broadway.
Rathbone of West Va.	450,000	3 00		
Rathbone Oil Tract	5,000,000	100 00		69 Wall street.
Rawson Farm	300,000	5 00		1 Hanover Square.
Red Stone				
Remington				
Renseliaer	50,000	5 00	5 per cent., to Oct. 31	
Revenue	250,000	50 00	1 per cent., Feb., '65	
Resolute	250,000	5 00		41 Fulton street.
Riceville				
Rickett's Farm	500,000	10 00		69 Wall street.
Ritchie Co. West Va.	800,000	5 00		156 West street.
Richardson Farm	500,000	5 00		
River Side	1,000,000	10 00		
Robinson	100,000			
Rockland Pet'm & Mining	500,000	10 00		
Rocky Run				
Rowland	150,000	10 00		
Rushville				
Rochester Petroleum and Peat				
Rynd Farm Oil	2,000,000	10 00	4 per cent., Feb., '65	71 Broadway.
Saxon de Tegre	300,000	3 00		77 Broadway.
Sage River & Oil Creek	1,000,000	10 00		81 Beaver street.
Sage Run Pet'm Ass'n	120,000	4 00		
Sandy River	500,000	100 00		
Scott's Farm				155 Broadway.
Scioto & Sandy	2,500,000	10 00		200 Broadway.
Second National	3,000,000	15 00		
Second National (of W. Va.)	500,000	10 00		
Seneca Reservation	1,000,000	50 00		30 Broad street.
Security (N. Y.)	200,000	2 00		90 Broadway.
Security Pet'm	500,000	5 00		
Seymour				74 Broadway.
Shales River	600,000	5 00		
Shale River	360,000	3 00	5 per cent. for Jan.	121 Chambers street.
Shafer Farm	500,000	10 00		28 Pine street.
Sherman	500,000	5 00		42 Pine street.
Sherman & Barnsdall	750,000	2 50		171 Broadway.
Sheba Oil	500,000	5 00		37 Nassau street.
Sirive Farm	500,000	5 00		81 Beaver street.
Smith's Ferry and Beaver Creek Oil and Salt Co.	300,000	5 00		156 Broadway.
Shoe & Leather				92 Broadway.
Southard	1,000,000	10 00		74 Broadway.
Standard	600,000	5 00		74 Broadway
Story & McClintock	500,000	10 00		57 Exchange Place.
Stella	500,000	5 00		229 Broadway.
Sugar Creek				124 Nassau street.
Sun Oil	200,000	2 00		
Star	300,000	3 00		
Star Pet'm & Mining	1,000,000	10 00		
Stewart's Run				
Success	1,000,000	10 00	2 p. c., 3 m's. end Jn. '65	15 South W'm street.
Tarbell				54 William street.
Tack	500,000	5 00		96 Wall street.
Talisman	500,000	10 00		61 Cedar street.
Tarentum Oil, Salt & Coal	500,000	100 00		40 William street.
Tarr Farm	3,000,000	100 00	2 per cent. Feb.	Hanover Square.
Taylor Farm	150,000	5 00		
Tarragenta	500,000	5 00		
Tarbell				
Tidiout's Island				Pearl street.
Tionesta & Sugar Creek Oil	500,000	5 00		74 Broadway.
Titus Estate	1,000,000	10 00		17 William street.
Tygerts Creek	300,000	3 00		
Tionesta and Horse Creek				
Titus Oil	650,000	10 00	3 per cent. Feb. 65.	
Titusville Oil & Land				
Tradesmens	1,000,000	10 00		
Tucker				
Union	125,000	10 00	10 per cent., Sept.	
United Pet'm Farms Ass'n	2,000,000	2 00	1½ per cent., Feb.	366 Washington st.
United Republic	2,500,000	10 00		5 Pine street.
United States	500,000	10 00	10 per cent, Nov.	74 Broadway.
Upper Duck Creek	150,000	75 00		47 Exchange Place.
U. S. Disintegrating Oil	2,000,000	10 00		249 Pearl street.
Venango	400,000	10 00	2 per cent, for Jan., '66	167 Broadway.
Venango & Pit Hole	300,000	10 00		12 Old Slip.
Venango Lubricating				
Venango & Mill Creek				
Vesta Pet'm & Refining	500,000	10 00		4 Cedar street.
Virginia	1,000,000	100 00		
Vesuvius (of W. Va.)				

NAME OF COMPANY.	CAPITAL	PAR VALUE	LAST DIVIDEND.	OFFICE.
Wa bun				
Walnut Bend	200,000	10 00		
Walker Creek (of W. Va.)	250,000	5 00		
Washington County				
Ward Farm	500,000	5 00		1 Rector street.
Watson	500,000	10 00		74 Broadway.
Watson Farm	500,000	5 00		
Webster	500,000	5 00		
Westmoreland Pet'm	600,000	10 00		
Widow McClintock	600,000	5 00		74 Broadway.
William Penn Oil	250,000	10 00		67 Beaver street.
West Hickory Oil and Mining	1,000,000	5 00		
West Virginia Oil & Coal	3,000,000	10 00		
Winona	1,000,000	10 00		31 Nassau street.
Weeks & Wright Oil Creek	650,000	100 00		66 South street.
Wyoming Rock Oil (C. W.)	1,000,000	10 00		115 Broadway.
Western Union				
West'n Va. Oil & Mining				
Wilcox				
Wolf Creek	200,000	5 00		49 William street.
Working People's	2,000,000	1 00		5 Rector street.
Wyoming (of Canada West)	250,000	10 00		
Washington Pet'm & Mining	1,000,000	10 00		4 Rector street.
PITTSBURG.				
Amazon Oil & Mining	1,000,000	5 00		
Amber	100,000	10 00		
Acme	200,000	20 00		
Etna	200,000	5 00		
Alleghany Valley	30,000	3 00		
Alleghany & Pittsburg	500,000	10 00		
Alleghany River	75,000	1 00		
Banner	150,000	1 00		
Blood Farm & Ohio	120,000	2 00		
Caldwell of Philadelphia	2,000,000	10 00		
Central Basin	125,000	1 00		
Cherry Run Central	250,000	1 00		
Cherry Run & Blood Farm	150,000	1 00		
Cherry Run & Pithole	200,000	1 00		
Columbia	2,500,000	50 00		
Culbertson's Run	150,000	2 00		
Champion	300,000	10 00		
Cairo Oil & Mining	200,000	5 00		
Duck Creek	2,000,000			
Duck Creek Valley	250,000	1 00		
Dunkard Creek Union	60,000	1 00		
Eldorado	1,000,000	5 00		
Enterprise	50,000	1 00		
Fayette	250,000	5 00		
Federal	480,000	8 00		
Fleming & Blood	100,000	4 00		
Fuller Reserve	100,000	1 00		
Frew	200,000	1 00		
Franklin and Sandy Coal and Oil	250,000	1 00		
Germania	200,000	5 00		
Great American	500,000	1 00		
Grove Farm	300,000	1 00		
Gallagher	200,000	5 00		
Hemlock	100,000	2 00		
Horse Neck	100,000			
Hocking Creek & Venango	80,000	1 00		
Iron City	150,000	5 00		
Jackson's Run	39,000	1 50		
Kanawha & Chestnut Run	150,000	1 00		
Lincoln Oil & Mining	100,000	1 00		
Lucesco		25 00		
Meadow		1 00		
Merchants	50,000	50		
McAboy Cherry Run	150,000	1 00		
Monongahela Pioneer	450,000	1 00		
Muskingum Oil Spring	500,000	5 00		
Muskingum & Duck Creek	150,000	1 00		
Midas	200,000	1 00		
McCrea	80,000	1 00		
Muskingum	300,000	2 00		
Nonpareil	60,000	5 00		
National Refining & Storing	200,000	10 00		
New York & West Va.				
Newell's Run				
Ohio Valley	60,000	1 00		
Oil Basin	500,000	10 00		
Oil City & Pittsburg	30,000	2 00		
Oil Creek & Cherry Run	300,000	3 00		
Paxton	500,000	5 00		
Phillips	200,000	5 00		
Pittsburg & New York	175,000	1 00		
Pittsburg & Philadelphia	80,000	10 00		
Pittsburg & West Va.		1 00		
Parker's Creek & Alleghany River	300,000	1 00		
People's	60,000	2 00		
Pittsburg & Brooklyn	250,000	2 00		
Pittsburg & Enterprise				
Panther Run & Alleghany River	200,000	1 00		
Pittsburg & Mount Pleasant	100,000	5 00		
Pittsburg, New York & Tionesta	200,000	10 00		
Pittsburg & Westmoreland	100,000	5 00		
Pearl	25,000	100 00		
Revenue	60,000	1 00		
Ritchie	100,000	1 00		
Ross	100,000	1 00		
Superior Rock Oil	25,000	1 00		
Shirk Farm	100,000	1 00		
Shirk's Island	100,000	1 00		
Stella	250,000	1 00		
Star Wells	130,000	1 00		
Steel Well	5,000	50 00		
Smoky City Rock Oil	20,000	5 00		
Steffee	100,000	1 00		
Story	25,000	5 00		
Tarr Story & Cherry Run	250,000	1 00		
Triumph	300,000	2 00		
Union Lubric	250,000	1 00		
Union Cherry Run Basin	250,000	1 00		
Union Oil & Coal	100,000	1 00		
Venango Central	75,000	1 00		
Venango Central & Duck C'k	100,000	1 00		
Western Pennsylvania	450,000	3 00	2 per cent., for March,	
West Virginia	100,000	2 00		
Whitely Creek	200,000	5 00		
Wolfe Creek	150,000	1 00		
Warren & Venango	36,000	100 00		
Wallover	60,000	50 00		
West Virginia Basin	20,000	1 00		
Cumberland River	500,000	1 00		
Copeland Farm	500,000	5 00		
Dunkard Creek Pet'm	250,000	1 00		
Garrard	150,000	1 00		
Good Intent				
Great Western of Ohio	1,000,000	5 00		
Macksburg	225,000	3 00		
Murray	1,000,000	1 00		
Pittsburg & Stewarts Run	1,000,000	1 00		

PETROLEUM—Continued.

NAME OF COMPANY.	CAPITAL.	PAR VALUE.	LAST DIVIDEND.	OFFICE.
Pearl Oil Manufacturing			4 per cent for July	
Pittsburg & Little Beaver C'k				
Ralston			1½ per cent. for Oct	
Tenant Farm	150,000	1 00		
Pittsburg & Boston	400,000	5 00		
PHILADELPHIA.				
Allegany Riv. & Schull's Run Oil Co.	375,000	2 50		Library street.
Brandon Island	500,000	5 00		524 Walnut street.
Bruner Oil & Mining	500,000	5 00		425 Chestnut street.
Bull Creek Oil Co.	1,000,000	10 00		309 Walnut street.
Burning Spring	1,000,000	10 00		113 Chestnut street.
Cherry Run Oil	200,000	10 00		419 Walnut street.
Clarion River Oil Cos.	500,000	3 00		341 Walnut street.
Clark Oil & Mining	500,000	5 00		529 Chestnut street.
Dalzell Pet'm	2,000,000	10 00		Bank Buildings.
Densmore Oil	500,000	10 00		Bank Buildings.
Donaldson Oil	500,000	5 00		328 Walnut street.
Drake Pet'm	1,000,000	10 00		36 South Third street.
El Dorado Oil Co.	1,000,000	5 00		Cor. Fifth & Walt sts.
French Creek Lubricating	450,000	15 00		524 Walnut street.
Gilfillan Oil Co	500,000	8 00		409 Walnut street.
Great Basin Oil Co.	350,000	5 00		Farquhar Buildings.
Hibberd Oil Co.	500,000	5 00		524 Walnut street.
Jersey Well Oil Co.	500,000	2 00		429 Chestnut street.
Krotzer Farm	500,000	5 00		425 Chestnut street.
McKibbeny Oil	1,000,000	10 00		Bank Buildings.
Mercantile Pet'm	400,000	5 00		303 Walnut street.
National Oil Creek	400,000	10 00		303 Walnut street.
Philadelphia & Oil Creek	500,000	10 00		327 Walnut street.
Phillips Oil Co.	200,000	5 00		303 Walnut street.
Pittsburg & Boston	400,000	5 00		14 Farq'har Buildings.
Pouring Rock & East Sandy	200,000	1 00		619 Walnut street.
Tarr Homestead Oil	1,000,000	10 00		274 South Third st.
Upper Island Oil	250,000	5 00		425 Chestnut street.
Volcanic Oil & Coal	1,000,000	10 00		11 Merchant's Ex.
Wallace Oil Co.	450,000	5 00		134 South Whf.
Walnut Island Oil	1,000,000	5 00		425 Chestnut street.
BOSTON.				
Fuller Farm Oil	250,000	10 00		233 State street.
BALTIMORE.				
Baltimore Pet'm	500,000	5 00		46 Second street.
New York, Philadelphia & Baltimore Consolidated	300,000	1 00		1 Carroll Hall.
ROCHESTER				
Titus Oil	650,000	10 00		

GOLD.

COMPANY.	SHARES.	STOCK.	SITUATION OF MINE.	SECRETARY & PLACE OF BUSINESS.
Acadia			Nova Scotia,	H. M. Nelson, 24 City Ex., Boston.
Albion		$ 300,000	Halifax, Nova Scotia,	H. M. Nelson, 24 City Ex., Boston.
Alps	100,000	250,000	Illinois Central Dist., Col.,	J. Stanton, Jr., 284 Pearl, N. Y.
Atlantic				Chas. Barett, 13 Doane, Boston.
Atl'tic & Pacific	50,000	5,000,000	Humboldt T., Humboldt co.,	J. N. Sewall, 8 Broad, N. Y.
American	100,000	5,000,000	Gregory Dist.,	
American Flag	60,000	600,000	Nevada Dist., Col.,	H. Foles, 12 Pine, N. Y.
Astor	200,000	1,000,000	On Comstock Lode,	J. Chapman, 71 Broadway, N. Y.
Baltic			Colorado,	New York.
Bates & Baxter			Colorado,	New York.
Bay State	200,000		Colorado,	Lem'l Bangs, Boston.
Benton	100,000	500,000	Colorado,	F. W. Capen, N. Y.
Black Hawk	50,000	5,000,000	Gilpin co., Col.,	D. Littlejohn, 81 John, N. Y.
Beacon		500,000	Halifax co., Nova Scotia,	J. B. Post, 20 Ex. Pl., N. Y.
Bobtail	100,000	1,000,000		J. Stanton, Jr., 25 Nassau, N. Y.
Briggs	10,000	1,000,000	Gilpin co., Col.,	D. Littlejohn, 81 John, N. Y.
Burroughs	100,000	1,000,000		L. Bangs, 22 Pine, N. Y.
Bullion	200,000	1,000,000	Bannock, Montana,	55 Liberty, N. Y.
Calvin	200,000	1,000,000	Clear Creek co., Col.,	12 Pine, N. Y.
Canadian				A. Call, 7 Phœnix B'l'g, Boston.
Chebucto	100,000	500,000	12 miles from Halifax,	J. E. M. Gilley, Boston.
Clarendon		500,000	5 miles from Halifax,	H. Doane, 41 State, Boston.
Chase	5,000	500,000	Colorado,	W. E. Lawton, 81 John, N. Y.
Central Gold M.	20,000	1,000,000	Central City, Col.,	L. Bangs, 22 Pine, N. Y.
Central Mining	200,000	1,000,000	Colorado,	46 Exchange Pl., N. Y.
Chandiere	100,000	500,000	5,090 A Famine Rio, C. E.,	Wm. B. Fowle, Boston.
Cobden	100,000	1,000,000	Idaho,	New York.
Colonial				W. N. Ely, 7 Trav'r B'l'g, Boston.
Colorado Boston			Colorado,	R. C. M'Laughlin, 60 State, Bos'n.
Colorado N. Y.			Colorado,	12 Pine, N. Y.
Coleman			Colorado,	New York.
Colorado Con of C. H.			Cedar Hill, Nevada,	New York.
Columbia	30,000	3,000,000	Austin City, Nevada,	10 Pine, N. Y.
Consul Gregory	50,000	5,000,000	Gregory Dist., Col.,	30 Pine, N. Y.
Cook & Kimball	1,000	150,000	Colorado,	W. W. Baldwin, 35 Wm., N. Y.
Copiahsbee	250,000	5,000,000	Parke co., Col.,	J. C. Stocker, 30 Pine, N. Y.
Corrisanuee	100,000	1,000,000	Colorado,	New York.
Commonwealth			Nevada,	Philadelphia.
Corry Ioun	100,000	2,500,000	Gilpin co., Col.,	46 Exchange Pl., N. Y.
Continental	20,000	2,000,000	Gregory Dist., Col.,	115 Liberty, N. Y.
Central Gold	200,000	1,000,000		L. Bangs, 22 Pine, N. Y.
Canton				
Dauphin & Colorado	200,000	1,000,000	Colorado,	D. P. Southworth, 423 Walnut, Pa.
Day & Bushnell	300,000	3,000,000	Colorado,	T. Chalmers, Jr., 20 Ex. Pl., N. Y.
Denver	50,000	1,000,000	Gilpin & Clear Creek, Col.,	J. Wadsworth, 61 Cedar, N. Y.
Devonshire				W. Stockbridge, 74 Fr'klin, Bos'n.
Downieville	300,000	300,000	Colorado,	J. C. Harriott, 70 Wall, N. Y.
Dorset			Chandiere River, C. E.,	F. McJimsey, 59 Wm., N. Y.
Eagle	100,000	1,000,000	Gold Dirt Dist., Col.,	J. P. Davies, 81 John, N. Y.
East Bannack	100,000	200,000	Bannack City, Montana,	J. Callender, 48 Ex. Pl., N. Y.
Eldorado	500,000	2,500,000	San A Dist., 9 miles of Austin,	208 S. Fourth, Phila.
Empire	250,000	5,000,000	Clear Creek, Col.,	H. K. Gates, 191 B'way, N. Y.
Empire Mill & M				O. F. Griffin, San Francisco.
Enriquetta			Arizona,	New York.
Esperanza		500,000	Star D., Humboldt co.,	117 Broadway, N. Y.
Etna	50,000	500,000	Nevada Dist., Col.,	C. W. Bryant, Boston.
Excelsior	30,000	300,000	Central City, Col.,	J. Weatherbee, Jr., 11 P. B'g, Bos.
Famine Falls	100,000	1,000,000		D. L. Dodge, 30 B'way, N. Y.
Frankfort				D. L. Demmon, 28 C'y W'f, Bos'n.
Garrisons	100,000	5,000,000	Colorado,	C. G. Mease, 29 William, N. Y.
Gem	25,000	1,200,000		H. K. Gates, 191 B'way, N. Y.
Georgetown			Colorado,	New York.
Gilbert River				C. E. Jackson, 18 Phe'x B'g, Bos'n.
Gilpin				C. W. Galloupe, 76 State, Boston.
Golconda	250,000	5,000,000		J. H. Sherman, 19 Broad, N. Y.
Gold Field				C. B. Cowling, 39 Kilby, Boston.
Gold River				W. H. Cheesman, 9 Central, Bos'n.
Gold Hill	50,000	500,000	Colorado,	W. T. Fustis, Boston.
Gold Mountain			Colorado,	New York.
Gold Min'g of Col	50,000	5,000,000	Colorado,	E. Latham, 23 William, N. Y.
Good Hope				
Gould & Curry				
Gunnel Central			Colorado,	70 Broadway, N. Y.
Gunnel Gold	300,000	3,000,000	Colorado,	F. E. Roelofson, 78 & 80 B'way, N. Y.
Gregory	20,000	1,000,000	Colorado,	Thos. Wildes, 17 William, N. Y.
Grenada	50,000	125,000	Colorado,	J. Stanton, Jr., 284 Pearl, N. Y.
Great Western	60,000	600,000	Russel Dist., Col.,	E. Kemeys, 70 Broadway, N. Y.
Gunnel Gold	100,000	1,000,000	Colorado,	F. E. Roelofson, 74 B'way, N. Y.
Halifax				A. Case, 7 Phœnix B'l'g, Boston.
Her'it'ge Ranch	30,000	300,000	El Dorado, Cal.,	
Hope	80,000	2,000,000	G'ld Dirt Lode, Gilp. co., Col.,	J. P. Davies, 81 John, N. Y.
Holman	150,000	300,000	Clear Creek co., Col.,	J. O'Neill, 20 B'way, N. Y.
Humboldt	100,000	500,000	Colorado,	
Idaho	100,000		Montana,	5 Pine, N. Y.
Invincible				
Isaac's Harbor	100,000	500,000	Isaac's Harbor, Nova Scotia,	W. F. Shirley, 135 B'way, N. Y.
Kansas Colorado	100,000	1,000,000	Colorado,	J. G. Greenlies, 111 B'way, N. Y.
Kent				G. H. Wyman, 19 Phe'x B'l'g, Bos.
Kip & Buell	100,000	200,000	Colorado,	J. C. Harriott, 70 Wall, N. Y.
Knick'rb'cker & Nevada	100,000	1,000,000		F. Avery, 74 B'way, N. Y.
La Crosse	100,000	$1,000,000	Nevada Dist., Colorado,	H. Fales, 12 Pine, N. Y.
Liebig	200,000	1,000,000	Colorado,	
Lake Major	12,000	$600,000	Nova Scotia,	Fred. Franck, 113 Water, N. Y.
Mariposa Gold	100,000	10,000,000	Bear Valley, Cal.,	G. W. Farlee, 34 Wall, N. Y.
Mammoth	50,000	500,000	Colorado,	J. Jarrett, 41 Liberty, N. Y.
Manhattan	100,000	1,000,000	Colorado,	W. R. Lothrop, 172 B'way, N. Y.
Massachus tts	250,000	1,200,000	Gilpin co., Col.,	W. D. Briggs, 11 Phe'x B'l'g, Bos.
Merchants	30,000	600,000	Alturas co., Idaho,	157 Broadway, N. Y.
Metropolitan				
Mountain Pride	100,000	1,000,000	B'r C'k, St. Bse., Idaho,	29 Pine, N. Y.
Montague	50,000	500,000	near Halifax, Nova Scotia,	C. B. Cowling, 39 Kilby, Boston.
Mount Alpine			Griffith Dist., Clear C'k, Col.,	J. B. Randol, N. Y.
Mount Vernon	500,000	5,000,000	Mt. V. & Mam'th Dist., Nev.,	25 Park Row, N. Y.
Mount Vista	50,000	500,000		J. Chapman, N. Y.
Montana	100,000	500,000	Nevada, Ills., Greg'y, Col.,	E. W. Hicks, 61 Cedar, N. Y.
Montezuma	100,000	500,000	Colorado,	F. B. Webster, Boston.
Montrose	100,000	1,000,000	Clear Creek co., Col.,	C. A. W. Sibley, 80 B'way, N. Y.
Morning Star		5,000,000	Owyhee co., Idaho,	137 B'way, N. Y.
Mexican Pacific	100,000	10,000,000	Mexico,	J. Mackie, 88 Wall, N. Y.
Mclanes & Stan			Calaveras co.,	606 Mont, San Francisco.
National	300,000	3,000,000	on So. Boulder C'k, Col.,	31 School, Boston.
Nevada Star				25 Pine, N. Y.
New England	50,000	150,000	Black Hawk, Col.,	J. Weatherbee, Jr., Boston.
New Mexico			near Santa Fe,	
New Gregory				W. A. Kent, 144 State, Boston.
New York City	50,000	5,000,000	G'd Canon D't, Land. co. Nev.	10 Pine, N. Y.
New York Dist.	50,000	500,000	Austin, N. Y. Dist., Nevada,	71 B'way, N. Y.
New York of Col	100,000	1,000,000		F. E. Roelfson, 74 B'way, N. Y.
N. Y. & Nevada	100,000	1,000,000	Nevada,	J. J. Osborn, 30 Pine, N. Y.
N. Y. G Min'g	100,000	1,000,000	Colorado,	F. E. Roelofson, 78 & 80 B'way.
N. Y. & Eldor'do			Nevada,	106 B'way, N. Y.
N. Y. & Idaho			Idaho,	180 Chatham, N. Y.
N. Y. & Santa Fe			Nevada,	New York.
N. Y. & O. G. & S. M.		1,000,000	Owyhee co., Idaho,	137 Broadway, N. Y.
N. Y. & O. F. G. & S. M.	10,000	1,000,000	Owyhee co., Idaho,	4 Pine, N. Y.
N. Y. & Reese R.			Nevada,	New York.
N. Y. & Washoe			Nevada,	New York.
North Clear C'k	100,000	1,000,000	Gilpin co., Col,	J. Francis, 80 B'way, N. Y.
Nova Scotia				Chas. Barrett, 13 Doane, Boston.
N. Y'k & Nova Scotia	100,000	1,000,000	Nova Scotia, Tangier, Nova Scotia,	Jos. E. Gay, 3 Hanover, N. Y.
National S Min'g		1,500,000	Owyhee co., Idaho,	115 B'way, N. Y.
Occidental	5,000	500,000	Nevada & Ills. C. Dist., Col.,	100 B'way, N. Y.
Oldham				Chas. Barrett, 13 Doane, Boston.
Ophir	62,500	625,000	on Comstock Lode, Nevada,	Virginia City, Nevada.
Pacific	40,000	4,000,000		24 Pine, N. Y.
People's	100,000	5,000,000	Alpine & Sierra cos.,	8 Pine, N. Y.
Peck				E. R. Sawyer, 144 State, Boston.
Perigo	60,000	3,000,000	Ind. Dist., Gilpin co., Col.,	J. W. Stratton, 90 B'way, N. Y.
Pengo				
Pine Mountain	30,000	3,000,000	Pine Mountain Dist., Nev.,	100 B'way, N. Y.
Pioneer & Inskip			Buena Vista Dist., Nevada,	15 Nassau, N. Y.
Phila. & Color'do	20,000	1,000,000	Central City, Col.,	E. W. Clark & Co., Phila.
Phelps & Gilm're			Colorado,	New York.
Pleasant Valley	125,000	1,250,000	Colorado,	J. S. Lyon, 69 Wall, N. Y.
Pontiac	50,000	1,000,000	Ill. Cen. M. Dist., Col.,	R. H. Rickard, 19 Nassau.
Prescott	100,000	1,000,000	Central Arizona,	69 B'way, N. Y.
Prince Albert				W. H. Chessman, 9 Central, B'stn.
Quaker City			Ind't D't. G'd D't City, Col.,	103 South Third, Phila.
Quartz Hill	40,000	100,000	Nevada Dist., Col.,	J. A. Tyler, 29 Wall, N. Y.
Quincy	20,000	200,000		W. H. Smith, 51 Ex. Pl., N. Y.
Ranche C'k	10,200	1,200,000	Pine Wood Dist., Nevada,	18 Broad, N. Y.
Realito		1,600,000	G'd Hill D., Storey co., Nev.,	117 B'way, N. Y.
Renfrew				W. Stockbridge, 74 F'klin, Bos'n.
Republic	15,000	1,500,000	Amador D., Lander co., Nev.,	67 Exchange Pl., N. Y.
Rocky Mountain	50,000	500,000	Grey & Empire Dists., Col.,	E. L. Bolles, 49 Ex. Pl., N. Y.
Reciprocity	100,000	5,000,000	Canada East,	B. B. Grant, Jr., 71 B'way, N. Y.
Scorpion			Virginia City, Nevada,	617 Clay, San Francisco.
Sherbrooke	100,000	1,000,000	Sherbrooke, Canada East,	F. Schumacker, Cliff, N. Y.
Silas Wright	60,000	600,000	Amador D., Lander co., Nev.,	18 Wall, N. Y.
Silver State	100,000	500,000	Humb't Starr, Pr. R. D., Humb't co., Nevada,	R. S. Miller, 49 William, N. Y.
Silver Wave	300,000	3,000,000	Reese riv., Lander co., Nev.,	Emmet Blair, 243 B'way, N. Y.
Smith & P'rmlee	125,000	2,500,000	Colorado,	G. A. Lathrop, 4 Broad, N. Y.
Spanish		3,000,000	La Plata, Churchill co., Nev.,	228 South Third, Phila.
So. Clear C'k			Colorado,	Canastota, N. Y.
Starlight Ledge	50,000	500,000	P'ville, El Dorado co.,	
Star of Color	200,000	2,000,000	Colorado,	J. N. Powers, 22 Pine, N. Y.
Standard	50,000	500,000	Gregory Dist., Col.,	T. A. Mitchell, 12 Wall, N. Y.
Steptoe	20,000	2,000,000	G'd Can., Lander co., Nev.,	157 B'way, N. Y.
Sterling City		1,200,000	Colorado,	New York.
Stewart	100,000	500,000	Colorado,	C. Durham, 31 Exchange, Boston.
Suffolk				Carlos Cobb, 22 William, N. Y.
Southa				Wm. Wallace, 11 Doane, Boston.
Stafford				C. E. Jackson, 15 Central, Boston.
Tascher	100,000	1,000,000	Colorado,	F. J. Wright, 8 Wall, N. Y.
Triunfo			San Antonio, Cal.,	San Francisco.
Union	240,000	12,000,000	Colorado,	New York.
United States	75,000	1,500,000	Colorado,	J. P. Stevens, N. Y.
Victoria				W. H. Chessman, 9 Central, B'stn.
Wauba Yuma	600,000	6,000,000	Arizona,	35 William, N. Y.
Waddingham	24,000	600,000	Alturas co., Idaho	157 B'way, N. Y.
Waverley				J. Leighton, 97 State, Boston.
Windsor Gold M	10,000	100,000	Colorado,	25 William, N. Y.
Wilson & Cross			Colorado,	New York.

Remarkable Volcanic Phenomena.

According to a correspondent of the London *Times*, who writes from Athens, a new island began to rise above the level of the sea in the Bay of Thera (Santorin), in the Grecian Archipelago, on the 4th of February, and in five days attained the height of from one hundred and thirty feet to one hundred and fifty feet, with a length of upwards of three hundred and fifty feet and a breadth of one hundred feet. It continues to increase, and consists of a rusty black metallic lava, very heavy, and resembling half-smelted scoria which has boiled up from a furnace. It contains many small, whitish semi-transparent particles disseminated through the mass like quartz or felspar. The eruption began on the 31st of January. A noise like volleys of artillery was heard, but without any earthquake. On the following day flames issued from the sea in a part of the bay called Vulkanos, where the water is always discolored and impregnated with sulphur from abundant springs at the bottom. The flames rose at intervals to the height of fifteen feet, and were seen at times to issue from the Southwestern part of Kaimene. That island was soon rent by a deep fissure and the southern part sank considerably. On the 4th of February the eruptions became more violent and the sea more disturbed. Gas forced itself up from the depths with terrific noise, resembling the bursting of a steam boiler; flames arose at intervals, and white smoke, rising steadily, formed an immense column, crowned with a curled capital of dark heavy clouds. The new island was visible next morning, increasing sensibly to the eye as it rose out of the sea at no great distance to the south of Nea Kaimene. The new island has been visited by Dr. Dekigalla, a man of science and an able observer, who will record accurately all the phenomena of the eruption as it proceeds. The heat of the sea rose from 62 Fahrenheit to 122, as near the vicinity of volcanic action as it was safe to approach. The bottom of the sea all round Nea Kaimene appears to have risen greatly. In one place, where the depth is marked on the Admiralty chart one hundred fathoms, it was found to be now only thirty, and at another, where it was seventeen, it is now only three fathoms. The new island, as it increases, will probably form a junction with Nea Kaimene. It grows, as it were, out of the sea, the mass below pushing upwards that which is already above water. The lower part is hot, its fissures, where they are deep, being 170 Fahrenheit, and the upper part, after four days' exposure, was found to be still 80. At present the centre of the volcanic force lies evidently far below the bottom of the sea, and only gases and smoke work their way through the incumbent earth to the water, and escape in noise, flames and smoke to the surface. But should a fissure at the bottom of the sea allow the water to penetrate to the fires that throw up the melted metal of the new island to the surface, an eruption may take place of a kind similar to that which destroyed Pompeii, but far more terrible. . . . . A later issue (March 8th) of the same paper sates that, as soon as Santorini was sighted, by H. B. M. ship Surprise, which had been despatched thither to render assistance to the inhabitants, and returned to Malta on the 23rd February, a dense white mass of vapor was observed rising from the sea, which appeared to be boiling from some unknown cause, and when the island was approached a strange sight was seen—the sea evidently was boiling, and clouds of the whitest steam rushed out, soaring heavenwards like an enormous avalauche, and looking like snow. Something black was then seen rising slowly from the sea, which afterwards turned out to be no less than an island springing from the deep. It appears that there were no earthquakes, but convulsions of nature caused by volcanic islands having been thrown up from the sea; and as violent eruptions had taken place the inhabitants were greatly alarmed, but at the time the Surprise arrived no immediate danger was apprehended. The position of the vessel was a very good one to watch the eruptions from the volcano on the burning island that had lately risen from the deep. The sea for several miles looked very strange, the sulphur giving it a yellowish appearance, and round the new volcanic island the sea was boiling at some one hundred yards distance from the shore. The steam rose with great grandeur, the whole island emitting smoke and sulphureous vapors, colored by the flames inside the volcano, in some places being cracked, and through the fissures an immense mass of red hot lava was visible. The volcano was in a constant state of life, and an eruption took place on the morning of the arrival of the Surprise. A black mass of vapor was vomited forth from the volcano, pouring upwards; but the fury of the eruption was soon expended, and it suddenly ceased. On the following day her Majesty's ships Phœbe and Tyrian arrived to the succor of the island. A Greek man-of-war had come in, and the next day a Russian rigate was seen approaching, but she did not seem to like appearances, and kept at a distance watching the phenomenon for some hours before going closer in. The second night after the arrival of the Surprise another eruption took place. The roar was very fierce, smoke poured forth from the volcano with terrific fury, and large blocks of rock and stone were hurled into the air, the whole presenting a most imposing sight. During that night it was said that a new island had been thrown up; the one pointed ont was about three hundred yards long, and was a black smoking mass. Close to the anchorage of the Surprise there had been a place called "Mineral creek;" which was then no more; a large hill had arisen out of it. It made its appearance before the arrival of that vessel, but it rose higher and higher during her presence there, while the old island was sinking gradually, as if about to return to the depths of the sea from which it had risen. On the sinking island were several houses, many of which were gone altogether, and others were being washed by the sea; of one house, there was little more than the roof and chimney pot above the water, while a building sank and rose again. It was remarkable that rocks were constantly appearing above the sea and then disappearing; and hence the position taken up by the Surprise was not very pleasant. On the second night a slight concussion was felt two or three times on board, and as islands had been springing up in the immediate neighborhood, it appeared likely that one would come up under the ship's bottom. At the time the wind and sea were heavy, and the vessel drifted rapidly in the direction of the volcano, round which the sea was boiling, and a world of steam, vapor and smoke arising. The Surprise immediately got up steam. A large number of houses were buried in the lava and by the new hill that rose from the Mineral creek; but fortunately, no lives were lost, as timely warning had been given and the inhabitants had escaped. The damage done to property was not so great as might have been expected.

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No. 37 Park Row, and 145 Nassau St., New York City.

P. O. Box 5,969.

THE ANNUAL REPORT OF THE DIRECTORS OF THE NINTH NATIONAL BANK TO THE STOCKHOLDERS.

NEW YORK, January 9, 1866.

The election was held this day, and the undersigned were unanimously re-elected Directors for the ensuing year. For this renewed and flattering expression of confidence on the part of the stockholders, the Directors return their thanks. The following is a STATEMENT OF THE CONDITION OF THE BANK, TUESDAY MORNING, January 2, 1866.

RESOURCES.

Loan and Discounts	$3,596,645 63
Government Securities	1,884,625 54
Furniture and Fixtures	13,000 00
Specie and Legal Tender	2,382,294 66
Checks and Bills on other Banks	959,171 71
Due from Banks and Bankers	756,111 23
	$9,591,848 77

LIABILITIES.

Capital Stock	$1,000,000 00
Surplus Profit after Paying Dividends	192,204 56
Dividends unpaid	53 336 58
Circulation	894,940 00
Deposits	7,451,367 63
	$9,591,848 77

In explanation we will say, that during the fiscal year, we have paid two Dividends of FIVE per cent. each, and the government taxes. And now exhibit an actual SURPLUS, over and above all losses, expenses and dividends, of NINETEEN per cent. on the CAPITAL STOCK. From the earnings of the last six months we have applied $50,000, that is FIVE per cent. on the Capital Stock, to the extinguishment of the premium account; and although the Stockholders do not get this Five per cent. in a dividend, yet it is represented in the United States Stocks held by the Bank. During the past year, your Bank became a member of the New York Clearing House Association, by an unanimous vote of that body. We are able to report, that your Bank has well fulfilled its patriotic mission, of aiding the placing of the Government Loans. The amount of subscriptions to the 7-30's was Forty-three Millions Two Hundred and Sixty-two Thousand Three Hundred Dollars ($43,262,300), this being the largest susbcription taken by any one Bank. To appreciate this result, we would remark, that had nineteen other banks taken each the same amount, the whole loan would have been taken by the twenty. This gives us opportunity to say, that having served our beloved country in its hour of peril, we desire now to turn all our efforts to the securing, in all legitimate and honorable ways, the increase of our business with the community; to that end we invite the cordial co-operation of each Stockholder. Our organization is now so well perfected as to give us all much satisfaction, and the relief from so much government business, gives our officers time to attend to individual dealers. Our deposits have been large, at times, during the year, reaching almost Twenty-one Millions of Dollars; but that was during the time the people were rushing to us with patriotic zeal, to offer their money to their country; now we can take the deposits of the business community; and we hold ourselves in readiness to DISCOUNT GOOD BUSINESS PAPER, payable at short dates. Such paper, being based on the sale of commodities, is, in our opinion, the safest business a bank can do.

DIRECTORS.

WILLIAM A. KOBBE,	SOLOMON L. HULL,
THOMAS A. VYSE, Jr.,	CHAS. MINZESHEIMER,
GEO A. WICKS,	J. O. WHITEHOUSE,
BARNET L. SOLOMON,	JOSEPH U. ORVIS.
GEO. A. FELLOWS,	

JOSEPH U. ORVIS, President.

JOHN T. HILL, Cashier.

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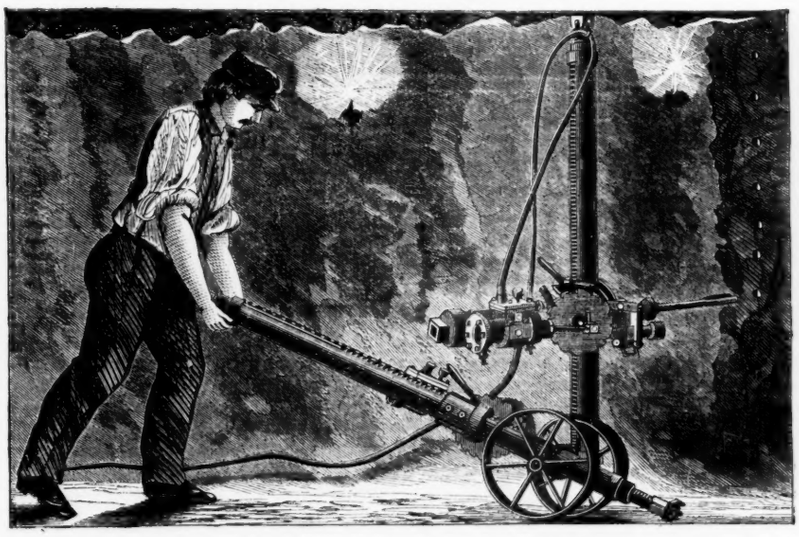

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